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1982

Census of Mineral Industries

MIC82-A-2

GEOGRAPHIC AREA SERIES

Middle Atlantic States

New Jersey, New York, Pennsylvania



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PUBLICATION PROGRAM

1982 CENSUS OF MINERAL INDUSTRIES

Publications of the 1982 Census of Mineral Industries, containing data on establishments primarily engaged in the extraction of minerals, are described below. Publications order forms for the specific reports may be obtained from any Department of Commerce district office or from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, D.C. 20233.

Preliminary Reports

Preliminary data from the 1982 census have been issued in 12 industry and 2 summary reports covering all of the 42 mineral industries. These reports are superseded by more detailed final reports.

Final Reports

Final detailed statistics are issued in separate paperbound reports.

Industry series—12 reports (MIC82-I-10A to -14E)

Each of the 12 reports provides information for an industry or a group of related industries (e.g., clay, ceramic, and refractory minerals). Final figures for the United States are shown for each of 42 mineral industries on quantity and value of products shipped and supplies used; inventories; quantity and cost of fuels and electric energy purchased, quantity of fuel stocks, and the quantities of fuels produced and consumed; capital expenditures; assets; rents; employment; depreciation, amortization and depletion; payrolls; hours worked; cost of purchased machinery; value added by mining; mineral development and exploration costs; number of establishments; and number of companies. Comparative statistics for earlier years are included. Industry statistics are shown by State, type of operation, and size of establishment.

Geographic area series—9 reports (MIC82-A-1 to -9)

A separate report for each of the nine geographic divisions presents statistics for individual States for two- and three-digit industry groups by type of operation and by county. Also, data are shown for value of shipments, value added by mining, employment, payroll, hours worked, capital expenditures, cost of supplies, etc., purchased machinery

installed, and number of mining establishments, with comparative 1977 data on employment and value added by mining.

Subject series—7 reports (MIC82-S-1 to -7)

Each of the 7 reports contains detailed statistics for an individual subject, such as water use in mineral industries; gross value of depreciable assets, capital expenditures, retirements, depreciation and rental payments; size of establishments; type of operation; fuels and electric energy consumed; type of organization; and a general National-level summary.

Final Report Volume

Final paperbound reports are subsequently assembled and reissued in one clothbound volume.

Microfiche

All published data are also available on microfiche.

Availability of Public Use Computer Tapes

Public-use computer tapes for the census of mineral industries are not included as part of the economic census publication program. Special tabulations can be made available on computer tape on a contract, cost-reimbursable basis. Contact Industry Division, Bureau of the Census, Washington, D.C. 20233 for more information.

OTHER ECONOMIC CENSUSES REPORTS

Data on retail trade, wholesale trade, service industries, construction industries, manufactures, enterprise statistics, minority-owned businesses, women-owned businesses, and transportation also are issued as part of the 1982 Economic Censuses. A separate series of reports covers the censuses of outlying areas—Puerto Rico, Virgin Islands of the United States, Guam, and the Northern Mariana Islands. All published reports and microfiche are sold by the Superintendent of Documents, U.S. Government Printing Office. Appropriate announcements and order forms describing these products are available free of charge from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, D.C. 20233.

1982

Census of

Mineral Industries

MIC82-A-2

GEOGRAPHIC AREA SERIES

Middle

Atlantic

States

New Jersey, New York, Pennsylvania

Issued April 1985



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Economic Affairs

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ECONOMIC CENSUSES OVER TIME

The early beginnings of America's industrial output were first measured in the United States in the 1810 Decennial Census and again in 1820, when questions on manufacturing were included with those for population. Beginning with the 1840 Decennial Census, there were enumerations of manufactures and mineral industries at 10-year intervals up to and including the year 1900 for manufactures and 1940 for mineral industries. The latter census was taken again for 1954, 1958, 1963, and 1967.

Because of the increasing dominance of manufacturing in the early 20th century, Congress directed that quinquennial censuses of manufactures be taken beginning in 1905. However, from 1919 through 1939, these censuses were conducted every 2 years. The need for war-related current surveys in the early 1940's postponed the next census of manufactures until 1948 (for 1947). That census was again taken for 1954, 1958, 1963, and 1967.

Retail and wholesale trade data were first collected in 1930, and in 1933 information on selected service industries was added to the data-collection operation. These business censuses, as they were called, were again taken for 1935, 1939 (as part of the 1940 decennial program), 1948, 1954, 1958, 1963, and 1967.

Information on construction industries was first obtained in 1930 and again for 1935 and 1939. Data for the full spectrum of construction industries were not gathered again until 1968 (for 1967).

The need for transportation data to supplement information available from existing governmental or private sources was recognized by Congress in the late 1950's and early 1960's. The census of transportation (consisting of several surveys) was first taken for 1963 and again for 1967.

Since 1967, all of the above censuses have been taken quinquennially as part of the Census Bureau's economic census program. (For the 1977 censuses, the coverage of the service

industries was broadened from "selected services" to all services, except religious organizations and private households. A total of 41 additional four-digit standard industrial classifications¹ (SIC's) in 7 SIC major groups was added to the scope of the census. While most of the industries included for the first time for 1977 were covered again for 1982, some were not, i.e., hospitals; elementary and secondary schools; colleges, universities, and professional schools; junior colleges and technical institutes; labor unions; and political organizations.)

The first manufacturing census for an outlying area was conducted in Puerto Rico for the year 1909. Thereafter, with the exception of 1929, a census was taken at 10-year intervals through 1949. The first censuses of retail trade, wholesale trade, and selected service industries in Puerto Rico were conducted for 1939. These censuses also were taken for the years 1949, 1954, 1958, 1963, and 1967. A census of construction industries was first introduced in Puerto Rico for 1967. These censuses of Puerto Rico have been taken since then for the years 1972, 1977, and 1982.

Censuses of manufactures, retail trade, wholesale trade, and selected service industries were conducted in Guam and the Virgin Islands of the United States for 1958, 1963, 1967, 1972, 1977, and 1982. Censuses of mineral industries were taken in the Virgin Islands of the United States for the years 1958, 1963, and 1967 but not since that time. A census of construction industries was also undertaken in these areas for 1972, 1977, and 1982.

Retail trade, wholesale trade, selected service industries, manufacturing, and construction industries were canvassed for the first time in the Northern Mariana Islands in 1983 (for 1982).

For 1982, the economic censuses and the agriculture census were conducted concurrently.

USES OF THE ECONOMIC CENSUSES

The economic censuses are the major source for facts about the structure and functioning of the Nation's economy and provide essential information for government, business, industry, and the general public. They provide an important part of the framework for such composite measures as the gross national product, input-output measures, indexes of industrial production, and indexes measuring productivity and price levels. Information from the censuses is used to establish sampling frames and as benchmarks for current surveys of business activity, which are essential for measuring short-term economic conditions.

¹Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.

State and local governments use census data to assess business activities within their jurisdictions. The private sector uses the data to forecast general economic conditions; analyze sales performance; lay out sales territories; allocate funds for advertising; decide on locations for new plants, warehouses, or stores; and measure potential markets in terms of size, geographic areas, kinds of business, and kinds of products made or sold.

Following every census, thousands of businesses and other users purchase reports. Likewise, census facts are widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. All 1982 data are available on microfiche from the U.S. Government Printing Office and most data on computer tape from the Census Bureau. Finally, the more than 50 State Data Centers also are suppliers of economic census statistics.

AUTHORITY AND SCOPE OF THE ECONOMIC CENSUSES

The economic censuses are required by law under title 13 of the United States Code, sections 131, 191, and 224, which directs that they be taken at 5-year intervals for the years ending in 2 and 7. The 1982 Economic Censuses covered manufacturing, mining, construction industries, retail trade, wholesale trade, service industries, and selected transportation activities. Special programs also cover minority-owned and women-owned businesses. The next economic censuses are scheduled to be taken in 1988 for the year 1987.

CENSUS OF MINERAL INDUSTRIES

General

The 1982 Census of Mineral Industries is the 19th census of mining establishments in the United States. For 1982, it was conducted jointly with the censuses of manufactures, construction industries, retail and wholesale trades, service industries, selected transportation activities, and minority-owned and women-owned businesses.

This report, from the 1982 Census of Mineral Industries, is one of a series of 9 geographic division reports, each of which provides statistics for individual states within a defined geographic area. Additional separate reports are issued for individual industries or groups of related industries and on special subjects, such as size of establishments, type of organization, assets, capital expenditures, type of operation, and fuels and electric energy consumed.

These separate reports subsequently will be issued as portions of the final census volume. The volume—Subject, Industry, and Area Statistics—will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments and receipts, capital expenditures, value added by mining, selected supplies consumed, and energy used. It will include, besides the industry statistics, geographic area statistics (number of establishments, employment, payrolls, value added, cost of supplies, value of shipments and receipts, and capital expenditures) for each State and county, by industry group and

statistics on selected subjects. The introduction to the final volume of the census of mineral industries will discuss; at greater length, many of the subjects described in this introduction. For example, the volume text will discuss the economic significance of the mining sector, the relation of value added by mining to value added by manufacture, some of the changes in statistical concepts over the history of the census, and the valuation problems arising from intracompany transfers between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

Scope of Census and Definition of Mineral Industries

The 1982 Census of Mineral Industries covers all establishments with one paid employee or more primarily engaged in mining as defined in the 1972 Standard Industrial Classification (SIC) Manual.¹ This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Office of Information and Regulatory Affairs, Office of Management and Budget. This system of classification is in general use among government agencies as well as organizations outside the government.

The SIC manual defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids such as coal and ores, liquids such as crude petroleum, and gases such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.) and other preparation needed to make minerals marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the exploration and development of mineral properties are classified separately but within this division.

Mining operations are classified by industry on the basis of the principal mineral produced or, if there is no production, on the basis of the principal mineral for which exploration or development work is in progress. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) also are excluded.

Mining operations carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on such mining activities have been obtained in the 1982 Census of Manufactures and are included in the mining reports. They are clearly specified wherever included.

¹Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.

Establishment Basis of Reporting

The census of mineral industries covers each mining establishment of firms with one paid employee or more operating in the United States. A firm operating more than one establishment is required to file a separate report for each location. A mineral establishment is defined as a single physical location where mineral operations are conducted.

For oil and gas field operations and for contract services, the basis for reporting is different from the "establishment" basis used for other types of mining. Firms operating oil and gas wells, drilling wells, or exploring for oil and gas for their own account were required to submit a separate report for each State or offshore area adjacent to a State in which it conducted such activities and to include employment, production, and capital expenditures data at the county level. Firms that performed contract services for oil and gas field operations or for mining establishments were required to submit one report covering all such activities in the United States and to include information on receipts for services by State and county. These consolidated reports were then allocated to county establishments based on the data reported at the county level. The 1982 figures for establishments include the summation of operations within each county allocated from these State or nationwide reports and, therefore, are not comparable to prior censuses.

Establishments, as presented in this report, are those in operation "during the year." In the General Summary report (MIC82-S-1), a comparison will be made at the U.S. level of the number of establishments in operation "during the year" and at the "end of the year."

Use of Administrative Records

From a mailout universe of about 36,000 mining establishments, approximately 11,000 small single-establishment companies were not mailed a questionnaire. For these establishments, some employment, payroll, and receipts data were obtained from the administrative records of other agencies. Selection of the small establishment nonmail cases was done on an industry-by-industry basis, and a variable cutoff was used to determine those establishments for which administrative records were to be used in place of a census report. This information was then used in conjunction with industry averages and other information to estimate the statistics for administrative-record and nonresponse establishments. The first column in tables 2a and 5 provides an indication of the extent that these establishments account for the figures shown. The value of shipments and receipts and cost of supplies were generally not distributed among specific products and supplies for these establishments, but were included in the product and supply "not specified by kind" categories. Overall, establishments for which administrative-record data were used accounted for less than 2 percent of total value of shipments and receipts.

The industry classification codes included in the administrative-record files were used for those establishments excused from filing census forms. Generally, these codes were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete, or where there are relatively fine lines of demarcation among industries or between mining and nonmining activities, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product or activity information. Therefore, the total establishment count should be

viewed as an approximate measure. The counts for establishments with 20 employees or more are far more reliable.

In the 1982 census, as in the 1977, 1972, and 1967 censuses, data for single-unit firms without paid employees were excluded. This exclusion had only a slight effect on industry aggregates for most industries. Data for firms without employees were included in the 1963, 1958, and 1954 censuses if they reported more than \$500 in (1) value of shipments and receipts, (2) cost of supplies and purchased machinery, or (3) capital expenditures.

Auxiliaries

Statistics for employment and payroll for individual industries and industry groups also include employment and payroll figures for administrative offices, warehouses, storage facilities, and other auxiliary establishments servicing mining establishments. As in previous censuses, respondents were asked to file separate reports (Form ES-9200) for any separately operated auxiliary establishments. Classification of employment and payroll data at such auxiliary establishments was based on the mining establishments served.

Industry Classification of Establishments

Each of the establishments covered by the census was classified in one of 42 mineral industries in accordance with the industry definitions in the SIC system. Under this system of classification, an industry is generally defined as a group of establishments producing the same main product or closely related group of products. The resulting group of establishments must be significant in terms of its number, value added by mining, value of shipments and receipts, and number of employees. Application of these criteria led to formulation of 42 mining industries, to each of which a four-digit code number was assigned. The classification system also provides broader groups of industries, with twenty three-digit groups and five two-digit groups. Within industries, the system provides for seven-digit products and five-digit product classes. Products are considered primary to an industry if the first four digits of the product codes are the same as the industry code. Products whose first four code numbers differ from the industry code are called secondary products. To determine the industry classification of an establishment, the seven-digit products are grouped together according to the first four digits of the product code. The first four digits of the group of products with the largest value of production become the industry code for the establishment. (For mineral service industries, the classification is on the basis of receipts for services performed.)

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Whenever possible, separate figures are shown for establishments with mines only, mines with preparation plants, and preparation plants only. Separate figures are provided by type of mine (underground, open pit, and combination). Separate statistics also are provided on producing and nonproducing operations, an establishment being defined as nonproducing if no mineral products were shipped during the year.

Statistics also are usually provided on the production of minerals mined and used in the same establishment for producing prepared minerals or used at the producing establishment for fuel.

Differences in the integration of production processes and types of operation should be considered when relating the general items (employment, payrolls, value added, etc.) to the product and material data.

CENSUS DISCLOSURE RULES

The Bureau of the Census is prohibited by Federal law from publishing any statistics that disclose information reported by individual companies. However, the number of companies classified in a specific industry is not considered a disclosure, so this item may be given even though other information is withheld.

The disclosure analysis for the State statistics in the tables of this report is based on the total value of shipments and receipts and capital expenditures. Whenever the total value of shipments and receipts cannot be shown without disclosing information for individual companies, the complete line has been suppressed. If capital expenditures alone is a disclosure, only total capital expenditures and cost of supplies statistics are suppressed. However, the suppressed data are included in higher level totals.

MICROFICHE

All data in the final reports and volume are available on microfiche. Microfiche reports are sold by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

SPECIAL TABULATIONS

Public-use tapes are not available for 1982 Census of Mineral Industries data. However, special tabulations of data collected may be obtained on computer tape or in tabular form. The data

will be in summary form and subject to the same rules prohibiting disclosure of confidential information (such as name, address, kind of business, or other data for individual business establishments or companies) as are the regular publications. Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief, Industry Division, Bureau of the Census, Washington, D.C. 20233.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

—	Represents zero.
(D)	Withheld to avoid disclosing data for individual companies.
(NA)	Not available.
(S)	Withheld because estimate did not meet publication standards on the basis of either the response rate or a consistency review.
(X)	Not applicable.
(Z)	Less than half the unit shown.
n.e.c.	Not elsewhere classified.
n.s.k.	Not specified by kind.
r	Revised.
SIC	Standard Industrial Classification.

Other abbreviations, such as lb, gal, yd, and bbl, are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 pounds; where the figures are expressed in tons of 2,240 pounds, the unit of measure is specified as "long tons" or "l. tons."

Users' Guide for Locating Statistics in This Report by Table Number

[For explanation of terms, see appendix]

Item	State historical	State by industry	State by industry group and type of operation	State summary	State by county and industry group	State by county and establishment size
Establishments:						
Total number	1	2a,2b	3	4a	5	6
Employment size				4a		6
Employment and payroll:						
Number of employees	1	2a	3	4a	5	
Payroll	1	2a		4a	5	
Production, development, and exploration—						
Workers	1	2a		4a	5	
Hours	1	2a,2b		4a	5	
Wages	1	2a,2b		4a	5	
Supplemental labor costs				4a		
Value added, cost of supplies, shipments, and inventories:						
Value added by mining	1	2a	3	4a	5	
Cost of supplies	1	2a,2b		4a	5	
Resales, cost and value				4a		
Purchased fuels consumed				4a		
Purchased electricity				4a		
Cost of contract work				4a		
Value of shipments and receipts	1	2a		4a	5	
Inventories				4b		
New and used capital expenditures, excluding land and rights:						
Total	1	2a		4a	5	
Buildings and structures				4a		
Machinery and equipment				4a		
Mineral exploration and development				4a		
Rental payments				4a		
Expensed mineral exploration, development, land, and rights				4a		

New Jersey

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SUMMARY OF FINDINGS

The total value of shipments and receipts for the 165 establishments classified in mineral industries in New Jersey was \$181 million in 1982 compared to \$130 million in 1977. Value added by mining amounted to \$120 million in 1982, and payroll in mining amounted to \$102 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in price levels. When making comparisons

to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in New Jersey was 3.4 thousand in 1982, an increase of 13 percent over 1977. The nonmetallic minerals, except fuels industry led all other mineral industries in the State, accounting for 65 percent of the State's mineral industries employment.

Table 1. Historical Statistics for the State: 1982 and Earlier Census Years

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
Mineral industries:											
1982 ¹	165	40	3.4	101.8	1.6	3.3	32.0	120.1	77.6	181.3	16.5
1977 ¹	157	36	3.0	48.6	1.7	3.5	22.1	93.3	49.9	130.4	12.7
1972 ¹	145	42	3.3	36.8	2.1	4.4	19.4	78.0	43.2	102.8	18.3
1967 ¹	138	45	2.9	22.1	2.1	4.6	13.6	50.6	25.9	70.1	6.4
1963	157	47	3.8	23.8	2.9	6.4	16.6	55.2	25.2	72.4	8.2
1958	135	42	3.7	19.5	2.8	5.6	13.4	37.6	14.9	48.7	3.9
Excluding oil and gas extraction industries:											
1982 ¹	126	36	2.4	59.8	1.4	2.8	29.4	109.4	(D)	168.5	(D)
1977											
1972	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1967											
1963											
1958											

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

¹Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982											1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees ² (1,000)	Value added by mining (million dollars)
		Total (number)	With 20 employees or more (number)	Number ² (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
	All mineral industries	E3	165	40	3.4	101.8	1.6	3.3	32.0	120.1	77.6	181.3	16.5	3.0
10	Metal mining	-	6	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	BB	(D)
13	Oil and gas extraction	E3	39	4	1.0	42.0	.2	.4	2.6	10.7	(D)	12.8	(D)	BB
1311	Crude petroleum and natural gas	-	13	2	CC	(D)	-	-	-	-	-	-	.3	3.1
138	Oil and gas field services	E2	26	2	AA	(D)	.2	.4	2.6	10.7	(D)	12.8	(D)	AA
1389	Oil and gas field services, n.e.c.	-	14	2	.2	4.3	.1	.4	2.3	9.2	(D)	9.8	(D)	(NA)
14	Nonmetallic minerals, except fuels	E3	117	31	2.2	53.5	1.3	2.6	26.6	102.2	67.6	156.6	13.2	2.0
142	Crushed and broken stone, including riprap	E3	22	11	.6	14.0	.5	.9	10.6	42.9	24.5	62.6	4.7	.7
1422	Crushed and broken limestone	-	3	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)
1429	Crushed and broken stone, n.e.c.	E5	16	7	.4	9.3	.3	.7	7.4	30.5	(D)	44.8	(D)	CC
144	Sand and gravel	E3	79	16	1.0	20.4	.7	1.5	14.8	54.6	38.5	85.2	7.9	1.0
1442	Construction sand and gravel	E4	63	8	.6	12.3	.4	.8	8.9	33.8	20.1	49.3	4.6	.5
1446	Industrial sand	E1	16	8	.4	8.1	.3	.7	5.9	20.8	18.4	36.0	3.3	.5
145	Clay, ceramic, and refractory minerals	E2	8	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA
1455	Kaolin and ball clay	-	5	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA

¹Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

²General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers		Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s. tons)
		Hours (millions)	Wages (million dollars)		
Nonmetallic mineral mines included in manufactures	1	(D)	(D)	(D)	(X)

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of estab- lish- ments	Producing establishments											Nonpro- ducing estab- lish- ments
			Total	Mines only				Mines with preparation plants				Separ- ately operated prepara- tion plants	Undistri- buted ¹	
				Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods			
	ALL MINERAL INDUSTRIES													
	Establishments..... number..	165	163	15	4	11	-	57	-	54	3	-	91	2
	Employees1,000..	3.4	(D)	(D)	(D)	.1	-	1.3	-	(D)	(D)	-	1.9	(D)
	Value added in mining mil. dol..	120.1	(D)	(D)	(D)	3.2	-	81.8	-	(D)	(D)	-	29.5	(D)
10	METAL MINING													
	Establishments..... number..	6	6	1	1	-	-	1	-	1	-	-	4	-
	Employees1,000..	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining mil. dol..	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	-	-	(D)	-
102	Copper ores													
	Establishments..... number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining mil. dol..	-	-	-	-	-	-	-	-	-	-	-	-	-
103	Lead and zinc ores													
	Establishments..... number..	1	1	1	1	-	-	-	-	-	-	-	-	-
	Employees1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
	Value added in mining mil. dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
104	Gold and silver ores													
	Establishments..... number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees1,000..	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
	Value added in mining mil. dol..	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
109	Miscellaneous metal ores													
	Establishments..... number..	3	3	-	-	-	-	1	-	1	-	-	2	-
	Employees1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining mil. dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	(D)	-
12	BITUMINOUS COAL AND LIGNITE MINING													
	Establishments..... number..	3	3	3	3	-	-	-	-	-	-	-	-	-
	Employees1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
	Value added in mining mil. dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
121	Bituminous coal and lignite mining													
	Establishments..... number..	3	3	3	3	-	-	-	-	-	-	-	-	-
	Employees1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
	Value added in mining mil. dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-

See footnotes at end of table.

Table 3. **Selected Statistics by Type of Operation and Industry Group for the State: 1982—**
Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of estab- lish- ments	Producing establishments											Nonpro- ducing estab- lish- ments
			Total	Mines only				Mines with preparation plants				Sepsa- rately operated prepara- tion plants	Undistri- buted ¹	
				Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods			
13	OIL AND GAS EXTRACTION													
	Establishments.....number...	39	39	-	-	-	-	-	-	-	-	-	39	-
	Employees.....1,000...	1.0	1.0	-	-	-	-	-	-	-	-	-	1.0	-
	Value added in mining.....mil. dol...	10.7	10.7	-	-	-	-	-	-	-	-	-	10.7	-
131	Crude petroleum and natural gas													
	Establishments.....number...	13	13	-	-	-	-	-	-	-	-	-	13	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol...	-	-	-	-	-	-	-	-	-	-	-	-	-
138	Oil and gas field services													
	Establishments.....number...	26	26	-	-	-	-	-	-	-	-	-	26	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol...	10.7	10.7	-	-	-	-	-	-	-	-	-	10.7	-
14	NONMETALLIC MINERALS, EXCEPT FUELS													
	Establishments.....number...	117	115	11	-	11	-	56	-	53	3	-	48	2
	Employees.....1,000...	2.2	(D)	.1	-	.1	-	(D)	-	(D)	(D)	-	(D)	(D)
	Value added in mining.....mil. dol...	102.2	(D)	3.2	-	3.2	-	(D)	-	(D)	(D)	-	(D)	(D)
141	Dimension stone													
	Establishments.....number...	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000...	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining.....mil. dol...	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	Crushed and broken stone, including riprap													
	Establishments.....number...	22	22	2	-	2	-	18	-	18	-	-	2	-
	Employees.....1,000...	6	6	(D)	-	(D)	-	(D)	-	(D)	-	-	(Z)	-
	Value added in mining.....mil. dol...	42.9	42.9	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
144	Sand and gravel													
	Establishments.....number...	79	77	5	-	5	-	34	-	31	3	-	38	2
	Employees.....1,000...	1.0	(D)	(D)	-	(D)	-	.6	-	(D)	(D)	-	(D)	(D)
	Value added in mining.....mil. dol...	54.6	(D)	(D)	-	(D)	-	34.7	-	(D)	(D)	-	(D)	(D)
145	Clay, ceramic, and refractory minerals													
	Establishments.....number...	8	8	3	-	3	-	1	-	1	-	-	4	-
	Employees.....1,000...	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
148	Nonmetallic minerals services													
	Establishments.....number...	4	4	-	-	-	-	-	-	-	-	-	4	-
	Employees.....1,000...	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
	Value added in mining.....mil. dol...	.8	.8	-	-	-	-	-	-	-	-	-	.8	-
149	Miscellaneous nonmetallic minerals													
	Establishments.....number...	3	3	-	-	-	-	3	-	3	-	-	-	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining.....mil. dol...	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-

¹Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

Table 4a. Summary Statistics for the State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982
Establishments during year ----- number	165	Cost of supplies ----- mil. dol..	77.6
With 0 to 19 employees ----- do	125	Supplies used, minerals received, and purchased machinery installed ----- do ..	46.1
With 20 to 99 employees ----- do	35	Resales ----- do ..	1.7
With 100 employees or more ----- do	5	Purchased fuels consumed ----- do ..	12.2
All employees:		Purchased electric energy:	
Average for year ----- 1,000 ..	3.4	Quantity ----- mil. kWh ..	195.7
Payroll for year ----- mil. dol..	101.8	Cost ----- mil. dol..	10.6
		Electric energy generated less sold ----- mil. kWh..	(Z)
		Contract work ----- mil. dol..	6.9
Production, development, and exploration workers:		Cost of purchased communication services ----- do ..	.2
Average for year ----- 1,000 ..	1.6	Value of shipments and receipts ----- do ..	181.3
March ----- do ..	1.5	Value of resales ----- do ..	1.8
May ----- do ..	1.6	Capital expenditures during year (except land and mineral rights) ----- do ..	16.5
August ----- do ..	1.6	New capital expenditures during year ----- do ..	14.2
November ----- do ..	1.6	Buildings and other structures, except land ----- do ..	1.2
Hours ----- millions ..	3.3	Machinery and equipment ----- do ..	13.0
January to March ----- do ..	.8	Used capital expenditures during year ----- do ..	1.8
April to June ----- do ..	.9	Buildings and other structures, except land ----- do ..	.1
July to September ----- do ..	.8	Machinery and equipment ----- do ..	1.6
October to December ----- do ..	.8	Mineral exploration and development ¹ ----- do ..	.6
Wages ----- mil. dol..	32.0	Rental payments during year ----- do ..	1.3
Supplemental labor costs not included in payroll ----- do ..	9.9	Buildings and other structures, except land ----- do ..	.2
Legally required expenditures, including Social Security contributions ----- do ..	5.1	Machinery and equipment ----- do ..	1.1
Payments for voluntary programs ----- do ..	4.8	Expensed mineral exploration, development, land, and rights ^{1 2} ----- do ..	14.3
Value added by mining ----- do ..	120.1		

¹Excludes data for mining service industries and natural gas liquids industry where data were not collected.

²Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.

Table 4b. Inventories for the State: End of 1981 and 1982

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
Total inventories ¹ -----	27.0	26.9
Detail by method of valuation:		
Subject to LIFO costing ² -----	1.7	1.4
LIFO reserve -----	.1	.1
LIFO value -----	1.6	1.3
Not subject to LIFO costing -----	10.8	11.6
Valuation method not reported ³ -----	14.5	13.9
Amount subject to LIFO reported without associated reserve and value ⁴ -----	-	-

¹Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

²Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.

³Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.

⁴Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

Table 5. Industry Group Statistics for Counties: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982											1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)	
		Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (militions)	Wages (million dollars)							
E ²															
14	New Jersey -----	E3	165	40	3.4	101.8	1.6	3.3	32.0	120.1	77.6	181.3	16.5	3.0	93.3
	Burlington County -----	E8	5	1	.1	2.7	.1	.2	2.1	8.2	4.2	11.2	1.2	(NA)	(NA)
	Nonmetallic minerals, except fuels-----	E9	4	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	E9	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Camden County -----	E5	7	2	.1	2.4	.1	.2	1.9	7.1	5.2	11.4	.8	(NA)	(NA)
	Nonmetallic minerals, except fuels-----	E5	7	2	.1	2.4	.1	.2	1.9	7.1	5.2	11.4	.8	(NA)	(NA)
144	Sand and gravel -----	E5	7	2	.1	2.4	.1	.2	1.9	7.1	5.2	11.4	.8	(NA)	(NA)

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982												1977	
		E ²	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
14	New Jersey—Con. Cumberland County -----	-	12	6	.3	6.0	.3	.5	4.9	16.1	17.8	31.2	2.6	.4	15.9
	Nonmetallic minerals, except fuels -----	-	12	6	.3	6.0	.3	.5	4.9	16.1	17.8	31.2	2.6	.4	15.9
144	Sand and gravel -----	-	12	6	.3	6.0	.3	.5	4.9	16.1	17.8	31.2	2.6	.4	15.9
	Middlesex County -----	E4	15	5	.6	19.8	(Z)	.1	.9	3.8	2.6	6.1	.4	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	E4	13	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Monmouth County -----	E3	13	2	.1	2.5	.1	.2	2.0	11.8	5.3	15.8	1.3	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	E1	8	1	.1	1.5	.1	.1	1.1	9.4	(D)	12.6	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Morris County -----	E2	17	4	.2	4.5	.1	.1	2.3	6.7	3.3	9.6	.4	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	E1	12	4	.2	4.4	.1	.1	2.2	6.3	(D)	9.0	(D)	(NA)	(NA)
144	Sand and gravel -----	E1	7	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Ocean County -----	E7	14	3	.1	3.2	.1	.2	2.3	8.5	5.9	13.2	1.3	.3	11.6
14	Nonmetallic minerals, except fuels -----	E9	10	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
144	Sand and gravel -----	E9	10	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Passaic County -----	E4	10	1	.1	2.9	.1	.2	2.3	8.8	5.6	12.8	1.6	.1	4.9
14	Nonmetallic minerals, except fuels -----	E4	9	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	3.9
142	Crushed and broken stone, including riprap -----	E5	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Somerset County -----	E5	5	4	.2	4.2	.1	.3	3.4	9.8	(D)	15.4	(D)	.4	23.4
14	Nonmetallic minerals, except fuels -----	E5	4	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	E5	4	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	23.0
	Sussex County -----	E2	14	5	.3	6.9	.2	.5	4.9	18.1	9.0	26.2	.9	.4	16.0
14	Nonmetallic minerals, except fuels -----	E3	11	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	-	5	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
144	Sand and gravel -----	E9	5	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Union County -----	E3	7	2	.2	7.4	.1	.2	.9	3.7	4.6	7.8	.5	.1	4.5
14	Nonmetallic minerals, except fuels -----	E1	4	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
145	Clay, ceramic, and refractory minerals -----	-	3	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Warren County -----	E1	5	1	.1	2.3	.1	.2	1.7	7.7	1.0	7.3	1.4	(NA)	(NA)

¹County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.²Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.³Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthra-cite mining (SIC 11)	Bitumi-nous coal and lignite mining (SIC 12)	Oil and gas ex-traction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthra-cite mining (SIC 11)	Bitumi-nous coal and lignite mining (SIC 12)	Oil and gas ex-traction (SIC 13)	Non-metallic minerals mining (SIC 14)
New Jersey -----	165	6	-	3	39	117	New Jersey—Con.						
0 to 4 employees -----	69	2	-	1	27	39	Mercer County -----	7	2	-	-	2	3
5 to 9 employees -----	21	-	-	-	3	18	0 to 19 employees -----	6	2	-	-	1	3
10 to 19 employees -----	35	1	-	-	5	29	250 employees or more -----	1	-	-	-	1	-
20 to 49 employees -----	22	1	-	2	-	19	Middlesex County -----	15	1	-	-	1	13
50 to 99 employees -----	13	2	-	-	2	9	0 to 19 employees -----	10	-	-	-	-	10
100 to 249 employees -----	4	-	-	-	1	3	20 to 99 employees -----	2	1	-	-	-	1
500 to 999 employees -----	1	-	-	-	1	-	100 to 249 employees -----	3	-	-	-	1	2
Atlantic County -----	5	-	-	-	3	2	Monmouth County -----	13	-	-	1	4	8
0 to 19 employees -----	5	-	-	-	3	2	0 to 19 employees -----	11	-	-	-	4	7
Bergen County -----	8	1	-	-	5	2	20 to 99 employees -----	2	-	-	1	-	1
0 to 19 employees -----	7	1	-	-	4	2	Morris County -----	17	-	-	-	5	12
20 to 99 employees -----	1	-	-	-	1	-	0 to 19 employees -----	13	-	-	-	5	8
Burlington County -----	5	-	-	-	1	4	20 to 99 employees -----	4	-	-	-	-	4
0 to 19 employees -----	4	-	-	-	1	3	Ocean County -----	14	1	-	-	3	10
20 to 99 employees -----	1	-	-	-	-	1	0 to 19 employees -----	11	-	-	-	3	8
Camden County -----	7	-	-	-	-	7	20 to 99 employees -----	3	1	-	-	-	2
0 to 19 employees -----	5	-	-	-	-	5	Passaic County -----	10	-	-	-	1	9
20 to 99 employees -----	2	-	-	-	-	2	0 to 19 employees -----	9	-	-	-	1	8
Cape May County -----	3	-	-	-	-	3	20 to 99 employees -----	1	-	-	-	-	1
0 to 19 employees -----	3	-	-	-	-	3	Somerset County -----	5	-	-	-	1	4
Cumberland County -----	12	-	-	-	-	12	0 to 19 employees -----	1	-	-	-	1	-
0 to 19 employees -----	6	-	-	-	-	6	20 to 99 employees -----	4	-	-	-	-	4
20 to 99 employees -----	6	-	-	-	-	6	Sussex County -----	14	1	-	-	2	11
Essex County -----	6	-	-	1	2	3	0 to 19 employees -----	9	-	-	-	2	7
0 to 19 employees -----	6	-	-	1	2	3	20 to 99 employees -----	5	1	-	-	-	4
Gloucester County -----	4	-	-	-	1	3	Union County -----	7	-	-	-	3	4
0 to 19 employees -----	4	-	-	-	1	3	0 to 19 employees -----	5	-	-	-	3	2
Hudson County -----	5	-	-	1	3	1	20 to 99 employees -----	1	-	-	-	-	1
0 to 19 employees -----	3	-	-	-	3	-	100 to 249 employees -----	1	-	-	-	-	1
20 to 99 employees -----	2	-	-	1	-	1	Warren County -----	5	-	-	-	1	4
Hunterdon County -----	2	-	-	-	-	2	0 to 19 employees -----	4	-	-	-	-	4
0 to 19 employees -----	2	-	-	-	-	2	20 to 99 employees -----	1	-	-	-	1	-
							Offshore -----	1	-	-	-	1	-
							0 to 19 employees -----	1	-	-	-	1	-

New York

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SUMMARY OF FINDINGS

The total value of shipments and receipts for the 598 establishments classified in mineral industries in New York was \$577 million in 1982 compared to \$298 million in 1977. Value added by mining amounted to \$415 million in 1982, and payroll in mining amounted to \$205 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in price levels. When making comparisons

to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in New York was 7.8 thousand in 1982, an increase of 10 percent over 1977. The nonmetallic minerals, except fuels industry led all other mineral industries in the State, accounting for 44 percent of the State's mineral industries employment.

Table 1. Historical Statistics for the State: 1982 and Earlier Census Years

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
Mineral industries:											
1982 ¹	2598	270	7.8	204.5	4.3	9.0	88.3	414.7	261.3	576.8	99.2
1977 ¹	467	63	7.1	133.5	4.2	8.6	61.3	217.8	113.4	298.1	33.1
1972 ¹	461	74	7.7	94.1	4.7	10.1	47.0	154.3	64.0	193.1	25.2
1967 ¹	467	87	9.1	81.7	5.9	12.6	43.0	137.5	53.7	175.5	15.7
1963	518	69	9.9	71.2	6.6	13.9	41.3	129.7	52.2	166.6	15.3
1958	543	69	9.7	57.0	6.4	13.6	34.0	116.0	44.5	147.6	12.8
Excluding oil and gas extraction industries:											
1982 ¹	281	42	5.4	144.5	2.9	6.0	61.1	216.5	101.1	289.4	28.2
1977 ¹	320	53	6.0	109.3	4.1	7.9	55.9	190.5	(D)	256.1	(D)
1972 ¹	367	74	7.4	87.3	4.9	10.4	49.9	158.1	61.7	198.8	21.0
1967 ¹	381	82	8.8	77.0	6.0	12.7	43.7	138.5	53.6	177.9	14.2
1963 ³	400	73	9.6	68.2	6.8	14.1	41.9	132.2	50.9	171.0	12.1
1958 ³	387	75	9.4	54.5	6.5	13.8	34.8	122.1	43.8	154.9	11.1

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

¹Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

²Not comparable to prior years. See Introduction for further explanation.

³Includes data for mining operations at manufacturing locations.

Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982										1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees ² (1,000)	Value added by mining (million dollars)
		E ¹	Total (number)	With 20 employees or more (number)	Number ² (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					
	All mineral industries ----	E3	598	70	7.8	204.5	4.3	9.0	88.3	414.7	261.3	576.8	99.2	7.1
10	Metal mining -----	-	26	11	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2.1	43.5
1021	Copper ores-----	-	4	4	.8	33.1	-	-	-	-	-	-	.7	-
1031	Lead and zinc ores-----	-	5	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	CC	(D)
104	Gold and silver ores-----	E9	5	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1041	Gold ores-----	-	3	1	AA	(D)	-	-	-	-	-	-	(NA)	(NA)
109	Miscellaneous metal ores-----	E9	3	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)
1094	Uranium-radium-vanadium ores-----	-	1	1	BB	(D)	-	-	-	-	-	-	(NA)	(NA)
13	Oil and gas extraction -----	E5	317	28	2.4	60.0	1.3	3.0	27.1	198.2	160.2	287.4	70.9	1.3
1311	Crude petroleum and natural gas-----	E7	173	9	1.0	24.4	.4	.8	8.2	106.3	87.7	146.5	47.6	.8
138	Oil and gas field services-----	E2	142	19	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	CC	(D)
1381	Drilling oil and gas wells-----	E3	61	9	.6	13.1	.4	1.0	9.1	30.3	36.1	57.1	9.3	AA
1382	Oil and gas field exploration services-----	E8	32	5	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1389	Oil and gas field services, n.e.c.-----	E1	49	5	.6	17.3	.3	.8	6.0	49.5	30.4	67.5	12.4	.2
14	Nonmetallic minerals, except fuels -----	E1	240	30	3.4	79.4	2.4	4.9	49.6	192.5	81.9	251.6	22.9	3.4
142	Crushed and broken stone, including riprap-----	-	69	16	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.4	53.9
1422	Crushed and broken limestone-----	-	50	9	1.0	24.0	.7	1.5	17.6	53.9	29.6	79.8	3.6	1.1
1429	Crushed and broken stone, n.e.c.-----	E1	16	7	.3	7.9	.2	.5	4.9	17.8	7.8	22.2	3.4	BB
144	Sand and gravel-----	E4	142	6	.9	16.9	.6	1.2	12.0	43.1	22.2	59.0	6.4	.9
1442	Construction sand and gravel-----	E4	136	5	.9	16.0	.6	1.2	11.2	42.1	20.5	56.7	5.9	.9
147	Chemical and fertilizer mineral mining-----	-	6	5	.8	21.7	.5	1.0	9.5	54.1	15.2	63.9	5.4	CC
1476	Rock salt-----	-	3	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	CC	(D)
1477	Sulfur-----	-	1	1	AA	(D)	-	-	-	-	-	-	AA	(D)
1479	Chemical and fertilizer mineral mining, n.e.c.-----	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
149	Miscellaneous nonmetallic minerals-----	-	12	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	BB	(D)
1496	Talc, soapstone, and pyrophyllite-----	-	2	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)
1499	Miscellaneous nonmetallic minerals, n.e.c.-----	E2	10	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)

See footnotes at end of table.

Table 2a. **Mineral Establishment Statistics by Industry for the State: 1982 and 1977—Con.**

¹Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

²General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 2b. **Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982**

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers		Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s. tons)
		Hours (millions)	Wages (million dollars)		
Nonmetallic mineral mines included in manufactures	10	.2	2.9	4.2	(X)
Crushed and broken stone, including riprap	3	(D)	(D)	(D)	(D)
Crushed and broken limestone	3	(D)	(D)	(D)	(D)
Gypsum	1	(D)	(D)	(D)	(D)

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

Table 3. **Selected Statistics by Type of Operation and Industry Group for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of estab- lish- ments	Producing establishments										Nonpro- ducing estab- lish- ments	
			Total	Mines only				Mines with preparation plants				Seps- arately operated prepara- tion plants		Undistrib- uted¹
				Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods			
	ALL MINERAL INDUSTRIES													
	Establishments..... number..	598	579	174	15	20	139	124	3	118	3	5	276	19
	Employees1,000.....	7.8	(D)	(D)	.1	.1	(D)	(D)	.8	1.8	(D)	(D)	3.9	(D)
	Value added in mining mil. dol.....	414.7	(D)	(D)	3.8	5.2	(D)	(D)	60.6	102.7	(D)	(D)	115.2	(D)
10	METAL MINING													
	Establishments..... number..	26	26	5	4	1	-	2	1	1	-	-	19	-
	Employees1,000.....	(D)	(D)	(D)	(D)	-	-	(D)	(D)	(D)	-	-	(D)	-
	Value added in mining mil. dol.....	(D)	(D)	(D)	(D)	-	-	(D)	(D)	(D)	-	-	(D)	-
101	Iron ores													
	Establishments..... number..	2	2	1	-	1	-	1	-	1	-	-	-	-
	Employees1,000.....	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining mil. dol.....	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
102	Copper ores													
	Establishments..... number..	4	4	-	-	-	-	-	-	-	-	-	4	-
	Employees1,000.....	.8	.8	-	-	-	-	-	-	-	-	-	.8	-
	Value added in mining mil. dol.....	-	-	-	-	-	-	-	-	-	-	-	-	-
103	Lead and zinc ores													
	Establishments..... number..	5	5	2	2	-	-	1	1	-	-	-	2	-
	Employees1,000.....	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	-	(D)	-
	Value added in mining mil. dol.....	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	-	-	-
104	Gold and silver ores													
	Establishments..... number..	5	5	2	2	-	-	-	-	-	-	-	3	-
	Employees1,000.....	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)	-
	Value added in mining mil. dol.....	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-

See footnotes at end of table.

Table 3. **Selected Statistics by Type of Operation and Industry Group for the State: 1982—**
Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of estab- lish- ments	Producing establishments										Nonpro- ducing estab- lish- ments	
			Total	Mines only				Mines with preparation plants				Sepsa- rately operated prepara- tion plants		Undistri- buted ¹
				Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods			
10	METAL MINING—Con.													
106	Ferroalloy ores, except vanadium													
	Establishments.....number...	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
108	Metal mining services													
	Establishments.....number...	5	5	-	-	-	-	-	-	-	-	-	5	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores													
	Establishments.....number...	3	3	-	-	-	-	-	-	-	-	-	3	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
12	BITUMINOUS COAL AND LIGNITE MINING													
	Establishments.....number...	15	13	11	11	-	-	-	-	-	-	-	2	2
	Employees.....1,000...	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(Z)	(Z)
	Value added in mining.....mil. dol...	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(Z)	-
121	Bituminous coal and lignite mining													
	Establishments.....number...	15	13	11	11	-	-	-	-	-	-	-	2	2
	Employees.....1,000...	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(Z)	(Z)
	Value added in mining.....mil. dol...	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(Z)	-
13	OIL AND GAS EXTRACTION													
	Establishments.....number...	317	304	139	-	-	139	-	-	-	-	-	164	13
	Employees.....1,000...	2.4	(D)	(D)	-	-	(D)	-	-	-	-	1	(D)	(D)
	Value added in mining.....mil. dol...	198.2	(D)	(D)	-	-	(D)	-	-	-	-	(D)	(D)	(D)
131	Crude petroleum and natural gas													
	Establishments.....number...	173	160	139	-	-	139	-	-	-	-	-	21	13
	Employees.....1,000...	1.0	(D)	(D)	-	-	(D)	-	-	-	-	-	.4	(D)
	Value added in mining.....mil. dol...	106.3	(D)	(D)	-	-	(D)	-	-	-	-	-	-	(D)
132	Natural gas liquids													
	Establishments.....number...	2	2	-	-	-	-	-	-	-	-	1	1	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	(D)	(Z)	-
	Value added in mining.....mil. dol...	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
138	Oil and gas field services													
	Establishments.....number...	142	142	-	-	-	-	-	-	-	-	-	142	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-

See footnotes at end of table.

Table 3. **Selected Statistics by Type of Operation and Industry Group for the State: 1982—**
Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments											Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed ¹	
				Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods			
14	NONMETALLIC MINERALS, EXCEPT FUELS													
	Establishments.....number..	240	236	19	-	19	-	122	2	117	3	4	91	4
	Employees1,000..	3.4	3.4	.1	-	.1	-	2.5	(D)	(D)	(D)	.1	.7	(Z)
	Value added in mining mil. dol..	192.5	192.6	5.2	-	5.2	-	163.4	(D)	(D)	(D)	2.8	21.3	(Z)
141	Dimension stone													
	Establishments.....number..	6	6	6	-	6	-	-	-	-	-	-	-	-
	Employees1,000..	(Z)	(Z)	(Z)	-	(Z)	-	-	-	-	-	-	-	-
	Value added in mining mil. dol..	1.7	1.7	1.7	-	1.7	-	-	-	-	-	-	-	-
142	Crushed and broken stone, including riprap													
	Establishments.....number..	69	68	2	-	2	-	56	-	56	-	3	7	1
	Employees1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	(D)	-
	Value added in mining mil. dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	-	-
144	Sand and gravel													
	Establishments.....number..	142	139	9	-	9	-	52	-	51	1	-	78	3
	Employees1,000..	.9	.9	(D)	-	(D)	-	(D)	-	.4	(D)	-	(D)	(Z)
	Value added in mining mil. dol..	43.1	43.2	(D)	-	(D)	-	(D)	-	19.2	(D)	-	(D)	(Z)
145	Clay, ceramic, and refractory minerals													
	Establishments.....number..	3	3	1	-	1	-	-	-	-	-	-	2	-
	Employees1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(Z)	-
	Value added in mining mil. dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
147	Chemical and fertilizer mineral mining													
	Establishments.....number..	6	6	1	-	1	-	3	2	-	1	-	2	-
	Employees1,000..	.8	.8	(Z)	-	(Z)	-	(D)	(D)	-	(D)	-	(D)	-
	Value added in mining mil. dol..	54.1	54.1	-	-	-	-	54.1	(D)	-	(D)	-	-	-
148	Nonmetallic minerals services													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals													
	Establishments.....number..	12	12	-	-	-	-	11	-	10	1	1	-	-
	Employees1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	(D)	(D)	-	-
	Value added in mining mil. dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	(D)	(D)	-	-

¹Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

Table 4a. **Summary Statistics for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982
Establishments during year.....number.....	598	Cost of supplies.....mil. dol.....	261.3
With 0 to 19 employees.....do.....	528	Supplies used, minerals received, and purchased machinery installed.....do.....	145.8
With 20 to 99 employees.....do.....	53	Resales.....do.....	.8
With 100 employees or more.....do.....	17	Purchased fuels consumed.....do.....	18.5
All employees:		Purchased electric energy:	
Average for year.....1,000.....	7.8	Quantity.....mil. kWh.....	329.8
Payroll for year.....mil. dol.....	204.5	Cost.....mil. dol.....	18.2
Production, development, and exploration workers:		Electric energy generated less sold.....mil. kWh.....	(S)
Average for year.....1,000.....	4.3	Contract work.....mil. dol.....	77.9
March.....do.....	4.0	Cost of purchased communication services.....do.....	.5
May.....do.....	4.3	Value of shipments and receipts.....do.....	576.8
August.....do.....	4.5	Value of resales.....do.....	3.5
November.....do.....	4.3	Capital expenditures during year (except land and mineral rights).....do.....	99.2
Hours.....millions.....	9.0	New capital expenditures during year.....do.....	83.0
January to March.....do.....	2.0	Buildings and other structures, except land.....do.....	8.2
April to June.....do.....	2.3	Machinery and equipment.....do.....	74.8
July to September.....do.....	2.4	Used capital expenditures during year.....do.....	4.8
October to December.....do.....	2.3	Buildings and other structures, except land.....do.....	.3
Wages.....mil. dol.....	88.3	Machinery and equipment.....do.....	4.5
Supplemental labor costs not included in payroll.....do.....	23.7	Mineral exploration and development ¹do.....	11.4
Legally required expenditures, including Social Security contributions.....do.....	12.2	Rental payments during year.....do.....	4.0
Payments for voluntary programs.....do.....	11.5	Buildings and other structures, except land.....do.....	.6
Value added by mining.....do.....	414.7	Machinery and equipment.....do.....	3.3
		Expensed mineral exploration, development, land, and rights ^{1 2}do.....	12.7

¹Excludes data for mining service industries and natural gas liquids industry where data were not collected.²Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.Table 4b. **Inventories for the State: End of 1981 and 1982**

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
Total inventories ¹	85.7	78.9
Detail by method of valuation:		
Subject to LIFO costing ²	12.0	8.7
LIFO reserve.....	1.7	1.7
LIFO value.....	10.3	7.0
Not subject to LIFO costing.....	45.4	41.0
Valuation method not reported ³	27.6	28.5
Amount subject to LIFO reported without associated reserve and value ⁴7	.7

¹Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.²Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.³Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.⁴Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.Table 5. **Industry Group Statistics for Counties: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982											1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees (1,000)	Value added by mining (million dollars)	
		E ²	Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)							Wages (million dollars)
	New York -----	E3	598	70	7.8	204.5	4.3	9.0	88.3	414.7	261.3	576.8	99.2	7.1	217.8
	Albany County -----	E1	6	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	E1	5	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	-	4	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Allegany County -----	E3	35	1	.2	3.3	.1	.3	2.2	12.7	5.5	15.3	2.9	.1	10.7
13	Oil and gas extraction -----	E3	33	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	10.0
131	Crude petroleum and natural gas -----	E3	23	-	.1	1.6	.1	.1	.9	9.3	2.4	9.9	1.8	(NA)	(NA)

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982											1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
		E ²	Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					
	New York—Con.													
	Cattaraugus County	E2	56	6	.4	8.9	.3	.5	5.4	34.6	22.7	50.1	7.1	.2
13	Oil and gas extraction	E2	47	5	.3	7.4	.2	.4	4.2	30.1	21.0	44.6	6.6	.1
131	Crude petroleum and natural gas	E4	28	2	.2	3.6	.1	.2	1.8	19.2	7.0	23.8	2.5	.1
138	Oil and gas field services	E1	19	3	.2	3.8	.1	.3	2.4	10.9	14.0	20.8	4.1	(NA)
14	Nonmetallic minerals, except fuels	E1	9	1	.1	1.5	.1	.1	1.2	4.4	1.7	5.6	.5	.1
144	Sand and gravel	E1	9	1	.1	1.5	.1	.1	1.2	4.4	1.7	5.6	.5	.1
	Chautauqua County	E1	45	5	.4	9.3	.4	.8	7.5	17.2	57.6	36.6	38.2	.2
13	Oil and gas extraction	E1	42	5	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2
131	Crude petroleum and natural gas	E2	14	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
138	Oil and gas field services	E1	27	4	.3	6.1	.2	.5	4.7	9.1	24.8	28.5	5.4	(NA)
	Dutchess County	E1	15	1	.2	5.1	.2	.4	3.9	16.1	6.9	22.0	1.0	.2
14	Nonmetallic minerals, except fuels	E1	15	1	.2	5.1	.2	.4	3.9	16.1	6.9	22.0	1.0	.2
142	Crushed and broken stone, including riprap	-	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Erie County	E2	38	1	.3	5.3	.2	.5	3.8	39.4	20.1	51.0	8.5	.2
13	Oil and gas extraction	E2	32	1	.2	4.7	.2	.4	3.4	38.3	(D)	49.7	(D)	(NA)
131	Crude petroleum and natural gas	E7	15	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
138	Oil and gas field services	-	17	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Essex County	-	3	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
10	Metal mining	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
101	Iron ores	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
14	Nonmetallic minerals, except fuels	-	2	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
147	Chemical and fertilizer mineral mining	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Genesee County	E9	10	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
13	Oil and gas extraction	E9	6	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
131	Crude petroleum and natural gas	E9	5	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Livingston County	-	8	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
14	Nonmetallic minerals, except fuels	-	4	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
147	Chemical and fertilizer mineral mining	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Monroe County	E2	18	2	.1	3.6	.1	.1	1.5	5.6	(D)	8.2	(D)	.2
14	Nonmetallic minerals, except fuels	E1	15	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
142	Crushed and broken stone, including riprap	-	4	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Nassau County	E9	18	2	.2	3.9	.1	.3	3.2	14.4	7.7	19.5	2.6	(NA)
14	Nonmetallic minerals, except fuels	E9	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
144	Sand and gravel	E9	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Niagara County	E1	7	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
14	Nonmetallic minerals, except fuels	-	5	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
142	Crushed and broken stone, including riprap	-	2	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Onondaga County	E1	11	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3
14	Nonmetallic minerals, except fuels	E1	10	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3
142	Crushed and broken stone, including riprap	-	4	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Rockland County	-	7	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
14	Nonmetallic minerals, except fuels	-	6	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
142	Crushed and broken stone, including riprap	-	4	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982											1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
		E ²	Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					
	New York—Con.													
	St. Lawrence County -----	-	11	5	.7	16.7	.5	1.1	12.6	34.1	18.9	47.2	5.8	1.1
10	Metal mining -----	-	5	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
103	Lead and zinc ores -----	-	4	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	E1	5	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
149	Miscellaneous nonmetallic minerals -----	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Suffolk County -----	E6	26	1	.2	3.0	.1	.3	2.4	11.4	5.6	15.6	1.4	.1
14	Nonmetallic minerals, except fuels -----	E6	19	1	.1	2.6	.1	.2	2.0	9.1	4.5	12.5	1.1	(NA)
144	Sand and gravel -----	E6	15	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	4.3
	Tompkins County -----	E2	7	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	-	3	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
147	Chemical and fertilizer mineral mining -----	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Ulster County -----	-	8	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	4.4
14	Nonmetallic minerals, except fuels -----	-	8	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	-	6	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Warren County -----	-	4	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	-	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
149	Miscellaneous nonmetallic minerals -----	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

¹County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.

²Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

³Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
New York -----	598	26	-	15	317	240	New York—Con.						
0 to 4 employees -----	329	9	-	10	210	100	Bronx County -----	2	-	-	-	1	1
5 to 9 employees -----	109	4	-	3	42	60	0 to 19 employees -----	2	-	-	-	1	1
10 to 19 employees -----	90	2	-	1	37	50	Broome County -----	2	-	-	1	-	1
20 to 49 employees -----	42	3	-	1	19	19	0 to 19 employees -----	1	-	-	-	-	1
50 to 99 employees -----	11	3	-	-	5	3	20 to 99 employees -----	1	-	-	1	-	-
100 to 249 employees -----	13	2	-	-	4	7	Cattaraugus County -----	56	-	-	-	47	9
250 to 499 employees -----	4	3	-	-	-	1	0 to 19 employees -----	50	-	-	-	42	8
Albany County -----	6	-	-	-	1	5	20 to 99 employees -----	6	-	-	-	5	1
0 to 19 employees -----	4	-	-	-	1	3	Cayuga County -----	3	-	-	-	2	1
20 to 99 employees -----	2	-	-	-	-	2	0 to 19 employees -----	3	-	-	-	2	1
Allegany County -----	35	-	-	-	33	2							
0 to 19 employees -----	34	-	-	-	32	2							
20 to 99 employees -----	1	-	-	-	1	-							

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.

(For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A)

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
New York—Con.							New York—Con.						
Chautauqua County	45	-	-	-	42	3	Oneida County	10	-	-	-	2	8
0 to 19 employees.....	40	-	-	-	37	3	0 to 19 employees.....	8	-	-	-	2	6
20 to 99 employees.....	4	-	-	-	4	-	20 to 99 employees.....	2	-	-	-	-	2
100 to 249 employees.....	1	-	-	-	1	-	Onondaga County	11	1	-	-	-	10
Chemung County	2	-	-	-	1	1	0 to 19 employees.....	9	1	-	-	-	8
0 to 19 employees.....	2	-	-	-	1	1	20 to 99 employees.....	1	-	-	-	-	1
Columbia County	4	-	-	-	1	3	100 to 249 employees.....	1	-	-	-	-	1
0 to 19 employees.....	4	-	-	-	1	3	Ontario County	8	-	-	-	2	6
Cortland County	1	-	-	-	-	1	0 to 19 employees.....	8	-	-	-	2	6
0 to 19 employees.....	1	-	-	-	-	1	Orange County	11	-	-	-	1	10
Delaware County	1	-	-	-	-	1	0 to 19 employees.....	11	-	-	-	1	10
0 to 19 employees.....	1	-	-	-	-	1	Orleans County	2	-	-	-	-	2
Dutchess County	15	-	-	-	-	15	0 to 19 employees.....	2	-	-	-	-	2
0 to 19 employees.....	14	-	-	-	-	14	Oswego County	4	-	-	-	-	4
100 to 249 employees.....	1	-	-	-	-	1	0 to 19 employees.....	3	-	-	-	-	3
Erie County	38	-	-	-	32	6	20 to 99 employees.....	1	-	-	-	-	1
0 to 19 employees.....	37	-	-	-	31	6	Otsego County	3	-	-	-	-	3
100 to 249 employees.....	1	-	-	-	1	-	0 to 19 employees.....	3	-	-	-	-	3
Essex County	3	1	-	-	-	2	Putnam County	3	-	-	-	-	3
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	3	-	-	-	-	3
20 to 99 employees.....	1	1	-	-	-	-	Queens County	2	-	-	1	1	-
100 to 249 employees.....	1	-	-	-	-	1	0 to 19 employees.....	2	-	-	1	1	-
Fulton County	2	-	-	-	1	1	Rensselaer County	5	-	-	-	2	3
0 to 19 employees.....	2	-	-	-	1	1	0 to 19 employees.....	5	-	-	-	2	3
Genesee County	10	-	-	-	6	4	Rockland County	7	-	-	-	1	6
0 to 19 employees.....	9	-	-	-	5	4	0 to 19 employees.....	3	-	-	-	1	2
20 to 99 employees.....	1	-	-	-	1	-	20 to 99 employees.....	4	-	-	-	-	4
Greene County	3	-	-	-	1	2	St. Lawrence County	11	5	-	-	1	5
0 to 19 employees.....	3	-	-	-	1	2	0 to 19 employees.....	6	2	-	-	-	4
Hamilton County	1	-	-	-	-	1	20 to 99 employees.....	3	2	-	-	1	-
0 to 19 employees.....	1	-	-	-	-	1	100 to 249 employees.....	1	-	-	-	-	1
Herkimer County	9	-	-	-	-	9	250 employees or more.....	1	1	-	-	-	-
0 to 19 employees.....	9	-	-	-	-	9	Saratoga County	5	-	-	-	2	3
Jefferson County	11	-	-	-	1	10	0 to 19 employees.....	5	-	-	-	2	3
0 to 19 employees.....	11	-	-	-	1	10	Schenectady County	1	-	-	-	-	1
Kings County	3	-	-	2	1	-	0 to 19 employees.....	1	-	-	-	-	1
0 to 19 employees.....	3	-	-	2	1	-	Schoharie County	2	-	-	-	1	1
Lewis County	2	-	-	-	-	2	0 to 19 employees.....	2	-	-	-	1	1
0 to 19 employees.....	2	-	-	-	-	2	Schuyler County	2	-	-	1	1	-
Livingston County	8	-	-	-	4	4	0 to 19 employees.....	2	-	-	1	1	-
0 to 19 employees.....	7	-	-	-	4	3	Seneca County	4	-	-	-	3	1
250 employees or more.....	1	-	-	-	1	1	0 to 19 employees.....	4	-	-	-	3	1
Madison County	3	-	-	-	2	1	Steuben County	9	-	-	-	5	4
0 to 19 employees.....	3	-	-	-	2	1	0 to 19 employees.....	9	-	-	-	5	4
Monroe County	18	-	-	-	3	15	Suffolk County	26	1	-	1	5	19
0 to 19 employees.....	16	-	-	-	3	13	0 to 19 employees.....	25	1	-	1	5	18
20 to 99 employees.....	2	-	-	-	-	2	20 to 99 employees.....	1	-	-	-	-	1
Montgomery County	4	-	-	-	1	3	Sullivan County	8	-	-	-	-	8
0 to 19 employees.....	4	-	-	-	1	3	0 to 19 employees.....	7	-	-	-	-	7
Nassau County	18	-	-	3	13	2	20 to 99 employees.....	1	-	-	-	-	1
0 to 19 employees.....	16	-	-	3	12	1	Tioga County	2	-	-	1	1	-
20 to 99 employees.....	2	-	-	-	1	-	0 to 19 employees.....	2	-	-	1	1	-
New York County	102	17	-	5	75	5	Tompkins County	7	-	-	-	4	3
0 to 19 employees.....	82	10	-	5	64	3	0 to 19 employees.....	3	-	-	-	2	1
20 to 99 employees.....	13	3	-	-	9	1	20 to 99 employees.....	3	-	-	-	2	1
100 to 249 employees.....	5	2	-	-	2	1	100 to 249 employees.....	1	-	-	-	-	1
250 employees or more.....	2	2	-	-	-	-	Ulster County	8	-	-	-	-	8
Niagara County	7	-	-	-	2	5	0 to 19 employees.....	6	-	-	-	-	6
0 to 19 employees.....	5	-	-	-	2	3	20 to 99 employees.....	2	-	-	-	-	2
20 to 99 employees.....	2	-	-	-	-	2							

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthra-cite mining (SIC 11)	Bitumi-nous coal and lignite mining (SIC 12)	Oil and gas ex-traction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthra-cite mining (SIC 11)	Bitumi-nous coal and lignite mining (SIC 12)	Oil and gas ex-traction (SIC 13)	Non-metallic minerals mining (SIC 14)
New York—Con.							New York—Con.						
Warren County	4	-	-	-	1	3	Westchester County	13	1	-	-	6	6
0 to 19 employees.....	3	-	-	-	1	2	0 to 19 employees.....	13	1	-	-	6	6
100 to 249 employees	1	-	-	-	-	1							
Washington County	5	-	-	-	1	4	Wyoming County	7	-	-	-	6	1
0 to 19 employees.....	5	-	-	-	1	4	0 to 19 employees.....	7	-	-	-	6	1
Wayne County	3	-	-	-	-	3	Yates County	1	-	-	-	1	-
0 to 19 employees.....	3	-	-	-	-	3	0 to 19 employees.....	1	-	-	-	1	-



Pennsylvania

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SUMMARY OF FINDINGS

The total value of shipments and receipts for the 1,905 establishments classified in mineral industries in Pennsylvania was \$4,576 million in 1982, or 2 percent of the Nation's total. This compares to \$3,625 million in 1977, when it was 4 percent of the Nation's total. Value added by mining amounted to \$2,937 million in 1982, and payroll in mining amounted to \$1,180 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes

in price levels. When making comparisons to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in Pennsylvania was 48.0 thousand in 1982, or 4 percent of the Nation's total. This is a decrease of 7 percent from 1977. The bituminous coal and lignite mining industry led all other mineral industries in the State, accounting for approximately 67 percent of the State's mineral industries employment.

Table 1. Historical Statistics for the State: 1982 and Earlier Census Years

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
Mineral industries:											
1982 ¹	21 905	2385	48.0	1 180.2	37.1	70.8	868.2	2 936.8	2 179.0	4 575.6	540.2
1977 ¹	1 696	417	51.7	851.9	42.1	80.7	658.1	2 166.1	1 895.8	3 625.4	436.5
1972 ¹	1 543	338	41.9	441.6	33.6	68.4	337.2	847.2	610.0	1 311.2	146.0
1967 ¹	2 041	392	42.3	296.7	35.7	71.2	235.1	603.0	431.9	949.4	85.4
1963	3 405	407	48.9	269.6	41.3	79.5	215.8	555.3	420.1	889.8	85.6
1958	3 822	525	74.0	342.2	63.6	105.2	277.0	579.7	459.9	963.8	76.0
Excluding oil and gas extraction industries:											
1982 ¹	1 156	324	40.8	1 011.7	33.0	61.7	786.2	2 344.8	1 820.7	3 804.9	360.6
1977 ¹ ³	1 332	401	49.7	821.6	40.7	77.7	637.5	2 051.7	(D)	3 472.2	(D)
1972 ¹ ³	1 193	325	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1967 ¹ ³	1 595	380	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1963 ³	2 809	404	46.1	255.6	39.9	76.5	210.0	535.1	405.1	868.5	71.7
1958 ³	3 148	514	70.6	327.9	61.1	100.4	267.8	557.2	435.9	930.4	62.7

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

¹Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

²Not comparable to prior years. See Introduction for further explanation.

³Includes data for mining operations at manufacturing locations.

Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982											1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees ² (1,000)	Value added by mining (million dollars)
		Total (number)	With 20 employees or more (number)	Number ² (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
	All mineral industries	E1	1 905	385	48.0	1 180.2	37.1	70.8	868.2	2 936.8	2 179.0	4 575.6	51.7	2 166.1
10	Metal mining	E3	22	4	.4	10.0	.3	.5	5.4	10.3	8.6	18.3	.6	23.1
1031	Lead and zinc ores	-	2	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)
11	Anthracite mining	E1	173	41	3.5	69.0	3.0	5.7	57.3	176.4	140.2	293.3	23.3	123.0
111	Anthracite mining	E1	173	41	3.5	69.0	3.0	5.7	57.3	176.4	140.2	293.3	23.3	123.0
1111	Anthracite	-	152	40	3.4	66.9	2.9	5.5	55.7	171.7	137.7	286.6	22.9	116.0
1112	Anthracite mining services	E6	21	1	.1	2.1	.1	.2	1.7	4.7	2.5	6.7	.5	7.1
12	Bituminous coal and lignite mining	-	675	224	32.3	843.5	26.6	49.1	666.0	1 957.6	1 555.0	3 206.6	306.1	1 703.6
121	Bituminous coal and lignite mining	-	675	224	32.3	843.5	26.6	49.1	666.0	1 957.6	1 555.0	3 206.6	306.1	1 703.6
1211	Bituminous coal and lignite	-	597	216	31.7	830.9	26.1	48.2	655.4	1 927.1	1 541.9	3 165.3	303.6	1 650.0
1213	Bituminous coal and lignite mining services	E2	78	8	.6	12.6	.5	1.0	10.6	30.6	13.2	41.3	2.4	53.6
13	Oil and gas extraction	E3	749	61	7.2	168.5	4.1	9.2	81.9	592.0	358.3	770.7	179.6	139.5
1311	Crude petroleum and natural gas	E4	382	23	3.5	90.7	1.2	2.4	24.4	347.7	(D)	404.4	(D)	81.8
138	Oil and gas field services	E2	364	38	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	EE
1381	Drilling oil and gas wells	E1	189	15	1.7	36.9	1.3	3.1	27.6	108.0	104.2	182.9	29.3	33.2
1382	Oil and gas field exploration services	E1	19	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
1389	Oil and gas field services, n.e.c.	E3	156	21	1.8	37.1	1.4	3.3	27.1	127.1	67.6	170.2	24.5	23.3
14	Nonmetallic minerals, except fuels	E1	286	55	4.6	89.2	3.1	6.3	57.5	200.4	116.9	286.7	30.7	176.9
142	Crushed and broken stone, including riprap	E1	145	40	2.9	56.6	2.0	4.0	38.1	131.0	82.7	189.8	24.0	121.5
1422	Crushed and broken limestone	E1	102	33	2.3	45.6	1.6	3.1	29.8	105.3	60.4	148.1	17.5	92.7
1429	Crushed and broken stone, n.e.c.	E1	38	6	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	CC
144	Sand and gravel	E1	86	10	1.0	19.2	.8	1.6	14.7	57.5	26.4	78.2	5.7	42.6
1442	Construction sand and gravel	E2	77	8	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	EE
1446	Industrial sand	-	9	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	BB
145	Clay, ceramic, and refractory minerals	E4	18	1	.2	3.7	.1	.1	1.1	2.9	2.4	5.1	.3	3.8
147	Chemical and fertilizer mineral mining	E9	4	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA
1476	Rock salt	-	2	1	AA	(D)	-	-	-	-	-	-	-	AA
1481	Nonmetallic minerals services ..	-	16	2	.1	2.3	.1	.2	2.0	3.9	2.8	6.3	3	(D)

See footnotes at end of table.

Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977—Con.

¹Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

²General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers		Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s. tons)
		Hours (millions)	Wages (million dollars)		
Nonmetallic mineral mines included in manufactures	33	1.0	11.5	14.4	(X)
Dimension stone	3	(D)	(D)	(D)	(D)
Crushed and broken stone, including riprap	19	.7	9.3	13.1	9 625.6
Crushed and broken limestone	19	.7	9.3	13.1	9 625.6
Clay and related minerals	11	(D)	(D)	(D)	(D)
Clay and related minerals, n.e.c.	11	(D)	(D)	(D)	(D)

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of estab- lish- ments	Producing establishments										Nonpro- ducing estab- lish- ments	
			Total	Mines only				Mines with preparation plants				Sepsa- rately operated prepara- tion plants		Undistrib- uted ¹
				Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods			
	ALL MINERAL INDUSTRIES													
	Establishments.....number..	1 905	1 879	918	418	119	381	341	42	256	43	34	586	26
	Employees.....1,000..	48.0	47.9	13.4	8.9	2.4	2.1	24.2	11.6	8.4	4.2	.9	9.4	.1
	Value added in mining.....mil. dol..	2 936.8	2 938.7	1 047.0	505.4	166.7	374.8	1 533.9	651.5	562.0	320.4	56.7	301.1	-1.9
10	METAL MINING													
	Establishments.....number..	22	22	6	-	6	-	1	1	-	-	-	15	-
	Employees.....1,000..	.4	.4	(D)	-	(D)	-	(D)	(D)	-	-	-	.2	-
	Value added in mining.....mil. dol..	10.3	10.3	(D)	-	(D)	-	(D)	(D)	-	-	-	3.3	-
101	Iron ores													
	Establishments.....number..	7	7	6	-	6	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(Z)	-
	Value added in mining.....mil. dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
103	Lead and zinc ores													
	Establishments.....number..	2	2	-	-	-	-	1	1	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	(D)	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	-	-
104	Gold and silver ores													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
106	Ferroalloy ores, except vanadium													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-

See footnotes at end of table.

Table 3. **Selected Statistics by Type of Operation and Industry Group for the State: 1982—**
Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments											Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed ¹	
				Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods			
10	METAL MINING—Con.													
108	Metal mining services													
	Establishments.....number..	5	5	-	-	-	-	-	-	-	-	-	5	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores													
	Establishments.....number..	4	4	-	-	-	-	-	-	-	-	-	4	-
	Employees.....1,000..	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
	Value added in mining.....mil. dol..	.3	.3	-	-	-	-	-	-	-	-	-	.3	-
11	ANTHRACITE MINING													
	Establishments.....number..	173	169	101	84	14	3	26	1	6	19	18	24	4
	Employees.....1,000..	3.5	3.5	(D)	(D)	.5	(D)	1.9	(D)	(D)	1.6	.3	(D)	(Z)
	Value added in mining.....mil. dol..	176.4	176.4	(D)	(D)	17.7	(D)	109.2	(D)	(D)	86.0	16.9	(D)	(Z)
111	Anthracite mining													
	Establishments.....number..	173	169	101	84	14	3	26	1	6	19	18	24	4
	Employees.....1,000..	3.5	3.5	(D)	(D)	.5	(D)	1.9	(D)	(D)	1.6	.3	(D)	(Z)
	Value added in mining.....mil. dol..	176.4	176.4	(D)	(D)	17.7	(D)	109.2	(D)	(D)	86.0	16.9	(D)	(Z)
12	BITUMINOUS COAL AND LIGNITE MINING													
	Establishments.....number..	675	663	416	334	73	9	128	37	73	18	11	108	12
	Employees.....1,000..	32.3	32.2	(D)	(D)	1.7	(D)	18.6	(D)	5.0	(D)	.6	(D)	.1
	Value added in mining.....mil. dol..	1 957.6	1 957.2	(D)	(D)	138.6	(D)	1 246.5	(D)	383.2	(D)	39.1	(D)	.5
121	Bituminous coal and lignite mining													
	Establishments.....number..	675	663	416	334	73	9	128	37	73	18	11	108	12
	Employees.....1,000..	32.3	32.2	(D)	(D)	1.7	(D)	18.6	(D)	5.0	(D)	.6	(D)	.1
	Value added in mining.....mil. dol..	1 957.6	1 957.2	(D)	(D)	138.6	(D)	1 246.5	(D)	383.2	(D)	39.1	(D)	.5
13	OIL AND GAS EXTRACTION													
	Establishments.....number..	749	744	369	-	-	369	-	-	-	-	3	372	5
	Employees.....1,000..	7.2	(D)	(D)	-	-	(D)	-	-	-	-	(D)	(D)	(D)
	Value added in mining.....mil. dol..	592.0	(D)	(D)	-	-	(D)	-	-	-	-	(D)	(D)	(D)
131	Crude petroleum and natural gas													
	Establishments.....number..	382	377	369	-	-	369	-	-	-	-	-	8	5
	Employees.....1,000..	3.5	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining.....mil. dol..	347.7	(D)	(D)	-	-	(D)	-	-	-	-	-	-	(D)
132	Natural gas liquids													
	Establishments.....number..	3	3	-	-	-	-	-	-	-	-	3	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
138	Oil and gas field services													
	Establishments.....number..	364	364	-	-	-	-	-	-	-	-	-	364	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—
Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of estab- lish- ments	Producing establishments											Nonpro- ducing estab- lish- ments
			Total	Mines only				Mines with preparation plants				Sepsa- rately operated prepara- tion plants	Undistri- buted¹	
				Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods			
14	NONMETALLIC MINERALS, EXCEPT FUELS													
	Establishments-----number--	286	281	26	-	26	-	186	3	177	6	2	67	5
	Employees -----1,000--	4.6	(D)	(D)	-	(D)	-	(D)	(D)	(D)	(D)	(D)	.9	(D)
	Value added in mining ----- mil. dol--	200.4	(D)	(D)	-	(D)	-	(D)	(D)	(D)	(D)	(D)	18.6	(D)
141	Dimension stone													
	Establishments-----number--	8	8	7	-	7	-	1	-	1	-	-	-	-
	Employees -----1,000--	.1	.1	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining ----- mil. dol--	3.2	3.2	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
142	Crushed and broken stone, including riprap													
	Establishments-----number--	145	143	1	-	1	-	131	3	127	1	1	10	2
	Employees -----1,000--	2.9	2.9	(D)	-	(D)	-	(D)	(D)	2.4	(D)	(D)	.2	(Z)
	Value added in mining ----- mil. dol--	131.0	131.0	(D)	-	(D)	-	(D)	(D)	123.0	(D)	(D)	-	(Z)
144	Sand and gravel													
	Establishments-----number--	86	85	1	-	1	-	45	-	40	5	1	38	1
	Employees -----1,000--	1.0	1.0	(D)	-	(D)	-	(D)	-	.6	(D)	(D)	.2	(Z)
	Value added in mining ----- mil. dol--	57.5	57.5	(D)	-	(D)	-	(D)	-	32.5	(D)	(D)	14.7	-
145	Clay, ceramic, and refractory minerals													
	Establishments-----number--	18	16	15	-	15	-	-	-	-	-	-	1	2
	Employees -----1,000--	.2	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	(D)
	Value added in mining ----- mil. dol--	2.9	(D)	(D)	-	(D)	-	-	-	-	-	-	-	(D)
147	Chemical and fertilizer mineral mining													
	Establishments-----number--	4	4	2	-	2	-	-	-	-	-	-	2	-
	Employees -----1,000--	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	-
	Value added in mining ----- mil. dol--	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
148	Nonmetallic minerals services													
	Establishments-----number--	16	16	-	-	-	-	-	-	-	-	-	16	-
	Employees -----1,000--	.1	.1	-	-	-	-	-	-	-	-	-	.1	-
	Value added in mining ----- mil. dol--	3.9	3.9	-	-	-	-	-	-	-	-	-	3.9	-
149	Miscellaneous nonmetallic minerals													
	Establishments-----number--	9	9	-	-	-	-	9	-	9	-	-	-	-
	Employees -----1,000--	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining ----- mil. dol--	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-

¹Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

Table 4a. Summary Statistics for the State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982
Establishments during year ----- number	1 905	Cost of supplies ----- mil. dol..	2 179.0
With 0 to 19 employees ----- do..	1 520	Supplies used, minerals received, and purchased machinery installed ----- do..	1 543.3
With 20 to 99 employees ----- do..	283	Resales ----- do..	51.4
With 100 employees or more ----- do..	102	Purchased fuels consumed ----- do..	161.0
All employees:		Purchased electric energy:	
Average for year ----- 1,000..	48.0	Quantity ----- mil. kWh..	2 492.8
Payroll for year ----- mil. dol..	1 180.2	Cost ----- mil. dol..	109.7
Production, development, and exploration workers:		Electric energy generated less sold ----- mil. kWh..	(D)
Average for year ----- 1,000..	37.1	Contract work ----- mil. dol..	313.5
March ----- do..	39.5	Cost of purchased communication services ----- do..	4.2
May ----- do..	37.7	Value of shipments and receipts ----- do..	4 575.6
August ----- do..	36.8	Value of resales ----- do..	56.4
November ----- do..	34.4	Capital expenditures during year (except land and mineral rights) ----- do..	540.2
Hours ----- millions..	70.8	New capital expenditures during year ----- do..	377.2
January to March ----- do..	19.4	Buildings and other structures, except land ----- do..	45.4
April to June ----- do..	18.5	Machinery and equipment ----- do..	331.8
July to September ----- do..	16.8	Used capital expenditures during year ----- do..	47.0
October to December ----- do..	16.1	Buildings and other structures, except land ----- do..	4.9
Wages ----- mil. dol..	868.2	Machinery and equipment ----- do..	42.2
Supplemental labor costs not included in payroll ----- do..	451.3	Mineral exploration and development ¹ ----- do..	116.0
Legally required expenditures, including Social Security contributions ----- do..	219.9	Rental payments during year ----- do..	53.6
Payments for voluntary programs ----- do..	231.4	Buildings and other structures, except land ----- do..	3.4
Value added by mining ----- do..	2 936.8	Machinery and equipment ----- do..	50.2
		Expensed mineral exploration, development, land, and rights ^{1 2} ----- do..	94.5

¹Excludes data for mining service industries and natural gas liquids industry where data were not collected.

²Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.

Table 4b. Inventories for the State: End of 1981 and 1982

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
Total inventories ¹ -----	279.4	342.2
Detail by method of valuation:		
Subject to LIFO costing ² -----	32.9	35.8
LIFO reserve -----	4.9	5.1
LIFO value -----	28.0	30.7
Not subject to LIFO costing -----	164.0	210.6
Valuation method not reported ³ -----	78.7	92.8
Amount subject to LIFO reported without associated reserve and value ⁴ -----	3.8	3.0

¹Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

²Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.

³Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.

⁴Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

Table 5. Industry Group Statistics for Counties: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982											1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
		E ²	Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					
	Pennsylvania -----	E1	1 905	385	48.0	1 180.2	37.1	70.8	868.2	2 936.8	2 179.0	4 575.6	540.2	51.7
	Allegheny County -----	E2	106	19	4.3	127.8	1.6	2.8	36.6	131.0	66.2	175.6	21.6	93.8
10	Metal mining -----	E9	9	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	3.1
12	Bituminous coal and lignite mining -----	E1	45	11	2.2	64.8	1.3	2.2	30.2	95.6	48.0	128.2	15.4	81.2
121	Bituminous coal and lignite mining -----	E1	45	11	2.2	64.8	1.3	2.2	30.2	95.6	48.0	128.2	15.4	81.2
13	Oil and gas extraction -----	E7	46	6	2.0	59.9	.2	.5	4.9	25.5	15.4	35.2	5.6	(NA)
131	Crude petroleum and natural gas -----	E8	25	3	1.8	54.7	(Z)	.1	.9	5.4	(D)	7.5	(D)	(NA)

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982											1977		
		E ²	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
13	Pennsylvania—Con. Allegheny County—Con. Oil and gas extraction—Con.														
138	Oil and gas field services -----	E6	21	3	.2	5.2	.2	.4	4.0	20.1	(D)	27.8	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels-----	-	6	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	6.2
144	Sand and gravel -----	-	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Armstrong County -----	E2	90	21	2.0	47.7	1.6	3.0	36.2	120.5	77.2	176.0	21.7	2.0	106.2
12	Bituminous coal and lignite mining -----	E1	47	14	1.5	37.1	1.3	2.3	30.1	92.6	58.9	134.6	16.9	1.7	93.2
121	Bituminous coal and lignite mining -----	E1	47	14	1.5	37.1	1.3	2.3	30.1	92.6	58.9	134.6	16.9	1.7	93.2
13	Oil and gas extraction -----	E4	30	5	.4	7.5	.3	.6	5.0	24.9	17.0	37.2	4.7	.1	7.1
131	Crude petroleum and natural gas-----	E4	21	2	.1	2.7	.1	.1	1.1	15.5	(D)	22.3	(D)	(Z)	3.4
138	Oil and gas field services -----	E4	9	3	.2	4.8	.2	.5	3.9	9.3	(D)	14.9	(D)	(NA)	(NA)
	Beaver County -----	-	13	4	.4	6.7	.2	.4	3.2	19.1	8.3	23.7	3.7	.2	4.9
13	Oil and gas extraction -----	-	7	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services -----	-	5	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Berks County -----	E2	12	4	.2	4.0	.2	.4	3.1	7.6	6.5	12.6	1.5	.7	18.8
14	Nonmetallic minerals, except fuels-----	E2	12	4	.2	4.0	.2	.4	3.1	7.6	6.5	12.6	1.5	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	E3	9	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Blair County -----	E1	6	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	4.7
14	Nonmetallic minerals, except fuels-----	E1	5	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	E1	5	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Bucks County -----	E6	14	4	.2	6.0	.2	.3	4.3	16.2	8.0	21.6	2.6	.2	8.5
12	Bituminous coal and lignite mining -----	E9	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	E9	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels-----	E4	11	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
144	Sand and gravel -----	E5	3	2	.1	1.6	.1	.1	1.2	7.0	(D)	9.3	(D)	(NA)	(NA)
	Butler County -----	E2	46	9	.6	15.0	.5	1.2	13.1	47.3	34.2	71.8	9.6	.8	35.4
12	Bituminous coal and lignite mining -----	E1	21	6	.5	12.2	.4	.9	10.6	37.0	24.1	56.6	4.5	.6	28.8
121	Bituminous coal and lignite mining -----	E1	21	6	.5	12.2	.4	.9	10.6	37.0	24.1	56.6	4.5	.6	28.8
14	Nonmetallic minerals, except fuels-----	E2	7	3	.1	2.6	.1	.2	2.3	8.1	(D)	12.2	(D)	.1	4.8
142	Crushed and broken stone, including riprap -----	E2	4	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Cambria County -----	-	40	14	2.5	64.7	2.0	3.4	52.0	125.2	152.2	252.1	25.3	5.6	164.0
12	Bituminous coal and lignite mining -----	-	33	14	2.5	64.6	2.0	3.4	51.9	122.5	(D)	249.6	(D)	5.6	163.3
121	Bituminous coal and lignite mining -----	-	33	14	2.5	64.6	2.0	3.4	51.9	122.5	(D)	249.6	(D)	5.6	163.3
	Centre County -----	E2	26	11	.7	17.1	.7	1.3	15.9	33.5	48.1	77.1	4.5	.8	32.5
12	Bituminous coal and lignite mining -----	E1	12	8	.6	14.8	.6	1.1	14.1	28.6	42.6	68.1	3.1	.6	29.2
121	Bituminous coal and lignite mining -----	E1	12	8	.6	14.8	.6	1.1	14.1	28.6	42.6	68.1	3.1	.6	29.2
14	Nonmetallic minerals, except fuels-----	E2	6	2	.1	1.4	.1	.1	1.1	4.6	1.6	5.9	.2	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	E2	4	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Chester County -----	E1	10	3	.2	3.9	.1	.2	2.2	9.7	5.4	13.8	1.3	.1	4.4
14	Nonmetallic minerals, except fuels-----	-	5	2	.1	1.8	.1	.2	1.5	6.2	(D)	8.9	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	-	3	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982											1977		
		E ²	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
	Pennsylvania—Con.														
	Clarion County	E1	62	11	1.4	38.9	1.0	2.1	26.8	117.0	105.1	190.6	31.6	1.5	117.3
12	Bituminous coal and lignite mining	-	25	10	1.3	36.7	.9	1.9	25.3	105.6	97.9	173.4	30.1	1.4	114.7
121	Bituminous coal and lignite mining	-	25	10	1.3	36.7	.9	1.9	25.3	105.6	97.9	173.4	30.1	1.4	114.7
13	Oil and gas extraction	E7	37	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas	E9	24	-	(Z)	.4	(Z)	(Z)	.2	7.8	(D)	11.3	(D)	(NA)	(NA)
138	Oil and gas field services	E1	13	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Clearfield County	E1	115	29	3.1	75.8	2.8	6.1	65.6	207.8	159.7	333.3	34.2	2.9	161.5
12	Bituminous coal and lignite mining	E1	90	29	3.0	73.9	2.7	6.0	64.2	195.9	154.1	322.3	27.6	2.8	157.5
121	Bituminous coal and lignite mining	E1	90	29	3.0	73.9	2.7	6.0	64.2	195.9	154.1	322.3	27.6	2.8	157.5
13	Oil and gas extraction	E2	20	-	.1	1.7	.1	.1	1.3	11.6	5.4	10.6	6.4	(Z)	2.0
131	Crude petroleum and natural gas	-	10	-	(Z)	.6	(Z)	(Z)	.5	8.6	(D)	5.0	(D)	(NA)	(NA)
138	Oil and gas field services	E4	10	-	(Z)	1.1	(Z)	.1	.8	2.9	(D)	5.5	(D)	(NA)	(NA)
	Crawford County	-	26	6	.3	5.8	.2	.5	4.4	72.4	23.1	62.9	32.6	.1	3.6
13	Oil and gas extraction	-	24	6	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas	-	11	3	.1	2.6	.1	.2	2.1	63.3	15.1	47.7	30.7	(NA)	(NA)
138	Oil and gas field services	-	13	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Cumberland County	E1	9	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Delaware County	E6	9	2	.1	2.3	.1	.2	1.9	12.2	(D)	17.5	(D)	(NA)	(NA)
13	Oil and gas extraction	E9	3	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas	E9	2	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels	E1	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Elk County	E2	21	-	.1	1.6	.1	.2	1.4	11.4	(D)	12.3	(D)	.2	6.5
12	Bituminous coal and lignite mining	E2	9	-	.1	1.3	.1	.1	1.1	6.3	5.1	9.6	1.8	.1	4.3
121	Bituminous coal and lignite mining	E2	9	-	.1	1.3	.1	.1	1.1	6.3	5.1	9.6	1.8	.1	4.3
	Erie County	E4	49	6	.4	7.9	.3	.6	5.5	34.5	28.3	56.7	6.0	.1	4.2
13	Oil and gas extraction	E4	39	6	.3	7.0	.2	.5	4.8	32.2	27.0	53.6	5.6	.1	3.1
131	Crude petroleum and natural gas	E9	14	1	(Z)	.9	(Z)	.1	.5	14.7	8.3	22.6	.4	(NA)	(NA)
138	Oil and gas field services	-	25	5	.3	6.1	.2	.4	4.3	17.5	18.7	31.0	5.2	(NA)	(NA)
	Fayette County	E4	71	14	1.0	23.4	.7	1.3	15.4	65.2	30.4	88.1	7.5	1.4	77.4
12	Bituminous coal and lignite mining	E3	49	10	.9	20.0	.6	1.1	13.3	41.6	17.6	54.6	4.7	1.3	69.9
121	Bituminous coal and lignite mining	E3	49	10	.9	20.0	.6	1.1	13.3	41.6	17.6	54.6	4.7	1.3	69.9
13	Oil and gas extraction	E8	15	2	.1	1.0	(Z)	(Z)	.3	16.0	7.8	21.7	2.1	(NA)	(NA)
131	Crude petroleum and natural gas	E8	11	2	.1	1.0	(Z)	(Z)	.3	15.8	(D)	21.4	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels	E2	7	2	.1	2.4	.1	.2	1.8	7.5	5.0	11.8	.7	.1	5.4
142	Crushed and broken stone, including riprap	E2	6	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Forest County	E1	22	2	.2	3.8	.2	.4	2.9	15.6	(D)	21.3	(D)	(NA)	(NA)
13	Oil and gas extraction	-	21	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services	-	15	2	.2	3.0	.1	.3	2.2	9.3	7.7	16.1	.9	(NA)	(NA)

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982												1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)	
		E ²	Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)							Wages (million dollars)
14	Pennsylvania—Con. Franklin County -----	-	8	3	.2	3.9	.2	.3	2.9	7.4	(D)	15.2	(D)	.2	7.5
142	Nonmetallic minerals, except fuels -----	-	5	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	-	3	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Fulton County -----	E1	6	1	.1	1.0	(Z)	.1	.7	5.1	3.3	7.6	.8	(NA)	(NA)
12	Greene County -----	-	41	14	3.9	108.5	3.4	6.2	92.5	252.9	110.2	325.5	37.6	4.6	155.8
121	Bituminous coal and lignite mining -----	-	21	13	3.8	106.6	3.3	6.1	91.6	245.3	106.0	315.0	36.3	4.6	154.0
121	Bituminous coal and lignite mining -----	-	21	13	3.8	106.6	3.3	6.1	91.6	245.3	106.0	315.0	36.3	4.6	154.0
13	Oil and gas extraction -----	E5	20	1	.1	1.9	.1	.1	.9	7.6	4.2	10.5	1.3	(NA)	(NA)
131	Crude petroleum and natural gas -----	E6	12	1	.1	1.1	(Z)	(Z)	.3	5.3	(D)	6.8	(D)	(NA)	(NA)
	Huntingdon County -----	-	6	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	8.6
14	Nonmetallic minerals, except fuels -----	-	4	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	7.3
144	Sand and gravel -----	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Indiana County -----	E1	116	31	4.9	128.9	3.8	6.9	93.2	357.8	377.8	671.2	64.5	5.3	228.0
12	Bituminous coal and lignite mining -----	E1	79	27	4.4	116.6	3.4	6.0	85.5	288.4	341.7	581.7	48.4	4.9	193.3
121	Bituminous coal and lignite mining -----	E1	79	27	4.4	116.6	3.4	6.0	85.5	288.4	341.7	581.7	48.4	4.9	193.3
13	Oil and gas extraction -----	E1	35	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E1	20	1	.1	2.6	.1	.1	1.5	39.4	16.2	45.6	10.0	(NA)	(NA)
138	Oil and gas field services -----	-	15	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	18.7
	Jefferson County -----	E2	65	13	.9	17.6	.8	1.6	15.4	74.1	50.4	112.6	12.0	.7	48.0
12	Bituminous coal and lignite mining -----	E2	44	11	.7	15.4	.7	1.3	13.7	64.3	47.1	100.6	10.8	.6	38.6
121	Bituminous coal and lignite mining -----	E2	44	11	.7	15.4	.7	1.3	13.7	64.3	47.1	100.6	10.8	.6	38.6
13	Oil and gas extraction -----	E2	19	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E2	12	1	.1	1.3	(Z)	.1	.9	7.7	(D)	9.0	(D)	(NA)	(NA)
	Lancaster County -----	E1	17	6	.4	7.0	.2	.4	3.7	15.7	9.6	23.1	2.1	.4	10.4
14	Nonmetallic minerals, except fuels -----	E1	15	6	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	10.4
142	Crushed and broken stone, including riprap -----	E1	11	6	.3	6.4	.2	.4	3.2	14.1	8.9	21.0	2.0	.3	9.1
	Lawrence County -----	E1	18	2	.3	5.6	.2	.4	4.3	12.3	7.0	17.7	1.6	.4	15.2
12	Bituminous coal and lignite mining -----	-	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	-	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	E1	11	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	7.1
142	Crushed and broken stone, including riprap -----	-	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	5.5
	Lehigh County -----	-	12	4	.8	16.7	.7	.9	15.5	23.3	18.3	40.9	.7	.4	7.7
10	Metal mining -----	-	2	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
103	Lead and zinc ores -----	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining -----	-	3	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	-	3	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Luzerne County -----	E1	45	12	1.1	22.3	.8	1.9	17.8	62.5	28.8	88.7	2.5	1.1	47.1
11	Anthracite mining -----	E1	34	12	1.0	20.7	.8	1.7	16.5	58.5	26.8	83.2	2.1	1.0	41.8
111	Anthracite mining -----	E1	34	12	1.0	20.7	.8	1.7	16.5	58.5	26.8	83.2	2.1	1.0	41.8

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982											1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees (1,000)	Value added by mining (million dollars)	
		E ²	Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)							Wages (million dollars)
12	Pennsylvania—Con. Lycoming County -----	E1	9	1	.1	2.3	.1	.2	1.8	10.6	3.9	13.5	1.0	.2	4.3
	Bituminous coal and lignite mining -----	E3	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	E3	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	-	6	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	McKean County -----	E4	127	12	1.4	27.8	1.1	2.4	20.6	83.2	55.7	123.5	15.4	.7	25.4
13	Oil and gas extraction -----	E4	124	11	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E6	65	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	16.5
138	Oil and gas field services -----	E3	59	7	.9	17.8	.7	1.7	13.8	49.0	32.8	70.9	10.9	(NA)	(NA)
	Mercer County -----	E1	26	1	.2	4.2	.1	.4	3.5	24.2	8.0	21.6	10.6	.1	10.8
12	Bituminous coal and lignite mining -----	E1	4	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	9.2
121	Bituminous coal and lignite mining -----	E1	4	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	9.2
13	Oil and gas extraction -----	E1	16	-	.1	1.5	(Z)	.1	1.0	15.0	(D)	10.4	(D)	(NA)	(NA)
138	Oil and gas field services -----	E2	9	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Montgomery County -----	E8	25	7	.6	13.1	.4	.7	7.3	52.4	25.3	71.7	6.0	.5	14.0
12	Bituminous coal and lignite mining -----	E9	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	E9	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction -----	E9	11	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E9	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services -----	E9	8	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	E4	12	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	12.3
142	Crushed and broken stone, including riprap -----	E4	8	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Northumberland County -----	E1	27	8	.5	9.1	.4	.7	6.6	21.7	15.3	35.8	1.2	.5	16.6
11	Anthracite mining -----	E1	21	7	.4	7.9	.4	.7	6.2	19.1	(D)	31.4	(D)	.4	14.7
111	Anthracite mining -----	E1	21	7	.4	7.9	.4	.7	6.2	19.1	(D)	31.4	(D)	.4	14.7
	Perry County -----	-	5	1	.1	2.4	.1	.2	1.8	7.3	(D)	7.2	(D)	(NA)	(NA)
13	Oil and gas extraction -----	-	4	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services -----	-	4	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Philadelphia County -----	-	12	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining -----	-	3	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	-	3	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Schuylkill County -----	E1	101	23	2.0	39.7	1.8	3.3	33.8	97.1	98.0	175.2	19.8	2.0	61.4
11	Anthracite mining -----	E1	98	22	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.9	59.7
111	Anthracite mining -----	E1	98	22	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.9	59.7
	Somerset County -----	E2	93	28	2.7	68.1	2.3	4.3	57.8	174.1	156.7	304.3	26.4	3.3	172.3
12	Bituminous coal and lignite mining -----	E2	73	26	2.5	65.2	2.2	4.1	55.4	164.4	149.4	288.0	25.8	3.2	166.6
121	Bituminous coal and lignite mining -----	E2	73	26	2.5	65.2	2.2	4.1	55.4	164.4	149.4	288.0	25.8	3.2	166.6
13	Oil and gas extraction -----	E3	10	-	(Z)	1.0	(Z)	.1	.8	6.2	(D)	10.7	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	-	6	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	-	9	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Tioga County -----	-	9	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining -----	-	4	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	-	4	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982											1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)	
		Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
		E ²													
	Pennsylvania—Con. Venango County	E2	72	4	.7	15.8	.6	1.2	12.7	75.2	54.1	105.8	23.4	.3	21.4
12	Bituminous coal and lignite mining	-	4	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	11.7
121	Bituminous coal and lignite mining	-	4	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	11.7
13	Oil and gas extraction	E3	64	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	9.0
131	Crude petroleum and natural gas	E3	23	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	8.3
138	Oil and gas field services	E4	40	2	.2	4.6	.2	.4	3.2	19.4	17.0	32.7	3.7	(NA)	(NA)
	Warren County	E2	55	2	.4	8.3	.3	.7	6.4	33.9	25.2	51.2	7.9	.1	12.3
13	Oil and gas extraction	E2	52	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	11.7
131	Crude petroleum and natural gas	E2	24	1	.2	3.7	.1	.2	2.7	20.8	11.2	27.3	4.8	.1	9.5
138	Oil and gas field services	E2	28	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Washington County	-	62	25	5.1	130.7	4.4	7.2	106.9	262.5	229.6	441.4	50.7	6.6	310.9
12	Bituminous coal and lignite mining	-	40	23	5.0	127.4	4.3	7.0	104.2	255.3	(D)	423.4	(D)	6.5	308.3
121	Bituminous coal and lignite mining	-	40	23	5.0	127.4	4.3	7.0	104.2	255.3	(D)	423.4	(D)	6.5	308.3
13	Oil and gas extraction	-	19	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas	-	9	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services	E1	9	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Westmoreland County	E2	71	7	.7	14.2	.5	1.1	10.9	53.0	35.2	81.0	7.2	1.5	75.5
12	Bituminous coal and lignite mining	E3	41	4	.4	7.8	.3	.6	6.2	21.4	18.5	36.5	3.4	1.2	53.2
121	Bituminous coal and lignite mining	E3	41	4	.4	7.8	.3	.6	6.2	21.4	18.5	36.5	3.4	1.2	53.2
13	Oil and gas extraction	-	21	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	9.4
131	Crude petroleum and natural gas	-	12	1	(Z)	.8	(Z)	(Z)	.5	14.9	(D)	20.4	(D)	.1	6.1
138	Oil and gas field services	E2	9	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels	-	9	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	13.0
142	Crushed and broken stone, including riprap	-	7	1	.1	1.5	.1	.2	1.4	5.0	2.9	7.2	.8	(NA)	(NA)
144	Sand and gravel	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	York County	E2	11	3	.2	3.9	.2	.3	3.1	11.0	(D)	15.1	(D)	.4	16.2
14	Nonmetallic minerals, except fuels	E1	9	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	16.2
142	Crushed and broken stone, including riprap	E1	7	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

¹County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.

²Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

³Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
Pennsylvania	1 905	22	173	675	749	286	Pennsylvania—Con.						
0 to 4 employees	915	11	69	222	524	89	Clinton County	5	-	-	-	4	1
5 to 9 employees	305	5	34	113	90	63	0 to 19 employees	4	-	-	-	3	1
10 to 19 employees	300	2	29	116	74	79	20 to 99 employees	1	-	-	-	1	-
20 to 49 employees	197	2	27	96	34	38	Columbia County	6	-	2	-	-	4
50 to 99 employees	86	-	8	52	16	10	0 to 19 employees	6	-	2	-	-	4
100 to 249 employees	72	2	5	48	10	7	Crawford County	26	-	-	1	24	1
250 to 499 employees	16	-	1	15	-	-	0 to 19 employees	20	-	-	1	18	1
500 to 999 employees	10	-	-	10	-	-	20 to 99 employees	6	-	-	-	6	-
1,000 to 2,499 employees	3	-	-	3	-	-	Cumberland County	9	-	-	1	2	6
2,500 employees or more	1	-	-	-	1	-	0 to 19 employees	7	-	-	-	2	5
Adams County	4	1	-	-	1	2	20 to 99 employees	1	-	-	-	-	1
0 to 19 employees	4	1	-	-	1	2	250 employees or more	1	-	-	1	-	-
Allegheny County	106	9	-	45	46	6	Dauphin County	5	-	2	-	-	3
0 to 19 employees	87	8	-	34	40	5	0 to 19 employees	4	-	2	-	-	2
20 to 99 employees	11	1	-	5	4	1	20 to 99 employees	1	-	-	-	-	1
100 to 249 employees	3	-	-	2	1	-	250 employees or more	1	-	-	1	-	-
250 employees or more	5	-	-	4	1	-	Delaware County	9	-	-	3	3	3
Armstrong County	90	-	-	47	30	13	0 to 19 employees	7	-	-	2	3	2
0 to 19 employees	69	-	-	33	25	11	20 to 99 employees	2	-	-	1	-	1
20 to 99 employees	16	-	-	10	4	2	Elk County	21	-	-	9	12	-
100 to 249 employees	4	-	-	3	1	-	0 to 19 employees	21	-	-	9	12	-
250 employees or more	1	-	-	1	-	-	20 to 99 employees	49	-	-	-	39	10
Beaver County	13	1	-	2	7	3	Erie County	43	-	-	-	33	10
0 to 19 employees	9	-	-	1	6	2	0 to 19 employees	6	-	-	-	6	-
20 to 99 employees	2	-	-	1	-	1	Fayette County	71	-	-	49	15	7
100 to 249 employees	2	1	-	-	1	-	0 to 19 employees	57	-	-	39	13	5
Bedford County	12	-	-	5	5	2	20 to 99 employees	12	-	-	8	2	2
0 to 19 employees	10	-	-	5	5	-	100 to 249 employees	2	-	-	2	-	-
20 to 99 employees	2	-	-	-	-	-	Forest County	22	-	-	-	21	1
Berks County	12	-	-	-	-	12	0 to 19 employees	20	-	-	-	19	1
0 to 19 employees	8	-	-	-	-	8	20 to 99 employees	1	-	-	-	1	-
20 to 99 employees	4	-	-	-	-	4	100 to 249 employees	1	-	-	-	1	-
Blair County	6	-	-	-	1	5	Franklin County	8	-	-	1	2	5
0 to 19 employees	5	-	-	-	1	4	0 to 19 employees	5	-	-	-	2	3
100 to 249 employees	1	-	-	-	-	1	20 to 99 employees	2	-	-	1	-	1
Bradford County	4	-	-	-	2	2	100 to 249 employees	1	-	-	-	1	-
0 to 19 employees	4	-	-	-	2	2	Fulton County	6	-	-	2	1	3
Bucks County	14	-	-	1	2	11	0 to 19 employees	5	-	-	8	19	-
0 to 19 employees	10	-	-	-	2	8	20 to 99 employees	6	-	-	5	1	-
20 to 99 employees	4	-	-	1	-	3	100 to 249 employees	2	-	-	2	-	-
Butler County	46	-	-	21	18	7	250 employees or more	6	-	-	6	-	-
0 to 19 employees	37	-	-	15	18	4	Huntingdon County	6	-	-	-	2	4
20 to 99 employees	8	-	-	5	-	3	0 to 19 employees	5	-	-	-	2	3
100 to 249 employees	1	-	-	1	-	-	100 to 249 employees	1	-	-	-	-	1
Cambria County	40	-	-	33	6	1	Indiana County	116	1	-	79	35	1
0 to 19 employees	26	-	-	19	6	1	0 to 19 employees	85	1	-	52	31	1
20 to 99 employees	7	-	-	7	-	-	20 to 99 employees	19	-	-	16	3	-
100 to 249 employees	6	-	-	6	-	-	100 to 249 employees	9	-	-	8	1	-
250 employees or more	1	-	-	1	-	-	250 employees or more	3	-	-	3	-	-
Cameron County	5	-	-	-	5	-	Jefferson County	65	-	-	44	19	2
0 to 19 employees	5	-	-	-	5	-	0 to 19 employees	52	-	-	33	17	2
Carbon County	5	-	3	-	-	2	20 to 99 employees	12	-	-	10	2	-
0 to 19 employees	5	-	3	-	-	2	100 to 249 employees	1	-	-	1	-	-
Centre County	26	1	-	12	7	6	Junata County	1	-	-	-	-	1
0 to 19 employees	15	1	-	4	6	4	0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	9	-	-	6	1	2	Lackawanna County	19	-	9	-	2	8
100 to 249 employees	2	-	-	2	-	-	0 to 19 employees	18	-	9	-	2	7
Chester County	10	-	-	4	1	5	100 to 249 employees	1	-	-	-	-	1
0 to 19 employees	7	-	-	3	1	3	Lancaster County	17	-	-	-	2	15
20 to 99 employees	3	-	-	1	-	2	0 to 19 employees	11	-	-	-	2	9
Clarion County	62	-	-	25	37	-	20 to 99 employees	6	-	-	-	-	6
0 to 19 employees	51	-	-	15	36	-							
20 to 99 employees	7	-	-	6	1	-							
100 to 249 employees	3	-	-	3	-	-							
250 employees or more	1	-	-	1	-	-							
Clearfield County	115	-	-	90	20	5							
0 to 19 employees	86	-	-	61	20	5							
20 to 99 employees	22	-	-	22	-	-							
100 to 249 employees	6	-	-	6	-	-							
250 employees or more	1	-	-	1	-	-							

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
Pennsylvania—Con.							Pennsylvania—Con.						
Lawrence County	18	-	-	3	4	11	Pike County	2	-	-	-	2	-
0 to 19 employees	16	-	-	2	4	10	0 to 19 employees	2	-	-	-	2	-
20 to 99 employees	1	-	-	1	-	1	Potter County	12	-	-	-	11	1
100 to 249 employees	1	-	-	-	-	-	0 to 19 employees	11	-	-	-	10	1
Lebanon County	2	-	-	-	-	2	20 to 99 employees	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	-	1	Schuylkill County	101	-	98	-	-	3
20 to 99 employees	1	-	-	-	-	1	0 to 19 employees	78	-	76	-	-	2
Lehigh County	12	2	-	3	2	5	20 to 99 employees	20	-	19	-	-	1
0 to 19 employees	8	1	-	-	2	5	100 to 249 employees	2	-	2	-	-	-
20 to 99 employees	1	-	-	1	-	-	250 employees or more	1	-	1	-	-	-
100 to 249 employees	2	1	-	1	-	-	Snyder County	2	-	1	-	-	1
250 employees or more	1	-	-	1	-	-	0 to 19 employees	2	-	1	-	-	1
Luzerne County	45	2	34	-	-	9	Somerset County	93	1	-	73	10	9
0 to 19 employees	33	2	22	-	-	9	0 to 19 employees	65	1	-	47	10	7
20 to 99 employees	10	-	10	-	-	-	20 to 99 employees	22	-	-	20	-	2
100 to 249 employees	2	-	2	-	-	-	100 to 249 employees	5	-	-	5	-	-
Lycoming County	9	-	-	3	-	6	250 employees or more	1	-	-	1	-	-
0 to 19 employees	8	-	-	2	-	6	Sullivan County	3	-	2	-	1	-
20 to 99 employees	1	-	-	1	-	-	0 to 19 employees	3	-	2	-	1	-
McKean County	127	1	-	-	124	2	Susquehanna County	7	-	1	-	-	6
0 to 19 employees	115	-	-	-	113	2	0 to 19 employees	7	-	1	-	-	6
20 to 99 employees	8	1	-	-	7	-	Tioga County	9	-	-	4	4	1
100 to 249 employees	4	-	-	-	4	-	0 to 19 employees	7	-	-	2	4	1
Mercer County	26	-	-	4	16	6	20 to 99 employees	1	-	-	1	-	-
0 to 19 employees	25	-	-	3	16	6	100 to 249 employees	1	-	-	1	-	-
20 to 99 employees	1	-	-	1	-	-	Union County	3	-	-	-	2	1
Mifflin County	2	-	-	-	1	1	0 to 19 employees	3	-	-	-	2	1
0 to 19 employees	2	-	-	-	1	1	Venango County	72	-	-	4	64	4
Monroe County	5	-	-	-	-	5	0 to 19 employees	68	-	-	3	61	4
0 to 19 employees	5	-	-	-	-	5	20 to 99 employees	2	-	-	-	2	-
Montgomery County	25	1	-	1	11	12	100 to 249 employees	2	-	-	1	1	-
0 to 19 employees	18	1	-	-	9	8	Warren County	55	-	-	-	52	3
20 to 99 employees	6	-	-	1	2	3	0 to 19 employees	53	-	-	-	50	3
100 to 249 employees	1	-	-	-	-	1	20 to 99 employees	2	-	-	-	2	-
Montour County	2	-	-	1	-	1	Washington County	62	-	-	40	19	3
0 to 19 employees	2	-	-	1	-	1	0 to 19 employees	37	-	-	17	17	3
Northampton County	7	-	-	-	1	6	20 to 99 employees	15	-	-	13	2	-
0 to 19 employees	5	-	-	-	1	4	100 to 249 employees	3	-	-	3	-	-
20 to 99 employees	2	-	-	-	-	2	250 employees or more	7	-	-	7	-	-
Northumberland County	27	-	21	-	2	4	Wayne County	4	-	-	-	-	4
0 to 19 employees	19	-	14	-	2	3	0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	7	-	6	-	-	1	Westmoreland County	71	-	-	41	21	9
100 to 249 employees	1	-	1	-	-	-	0 to 19 employees	64	-	-	37	20	7
Perry County	5	-	-	-	4	1	20 to 99 employees	6	-	-	4	1	1
0 to 19 employees	4	-	-	-	3	1	100 to 249 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	1	-	Wyoming County	2	-	-	-	-	2
Philadelphia County	12	2	-	3	5	2	0 to 19 employees	1	-	-	-	-	1
0 to 19 employees	10	2	-	1	5	2	20 to 99 employees	1	-	-	-	-	1
100 to 249 employees	1	-	-	1	-	-	York County	11	-	-	-	2	9
250 employees or more	1	-	-	1	-	-	0 to 19 employees	8	-	-	-	2	6
							20 to 99 employees	3	-	-	-	-	3

APPENDIX A.

Explanation of Terms

Employment and related items—The report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year and for other employees as of the payroll period which included the 12th of March.

All employees—This item includes all full-time and part-time employees on the payrolls of mining establishments for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees working for miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working supervisor level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and guard services, auxiliary production for use at establishments (such as power plant), record keeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and supervisors who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and persons engaged by them and paid out of the total amount received by these miners. In addition, other employees at the establishment but not on its payroll are included if paid directly through its own employees, such as superintendents and supervisors. The payments received by these types of employees are included as part of the establishments payroll. Supervisory employees above the working supervisor level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working supervisor level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical and routine office functions, executive, purchasing, financing, legal,

personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Separately operated auxiliary establishments employees—This item includes employment at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment during the payroll period which included March 12. Establishments were classified on the basis of the industry or principal industry served. Employees at an office located at or near the mining establishment are usually included in the mine report.

All employees, average for year—The 1982 census report form requested employment figures for production, development, and exploration workers for four selected pay periods (mid-March, May, August, and November). For all other employees, only a mid-March figure was requested. The annual average is an average of the four monthly figures for production, development, and exploration workers plus the March figure for all other employees. This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods closely approximates, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods.

Payroll—This term includes all forms of compensation such as salaries, wages, commissions, payments received on a ton, car, or yard basis, dismissal pay, bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern, and payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages. As in the case of employment and establishment figures, the annual payrolls of separate auxiliary establishments of multiestablishment companies are included in the totals for individual industries and for States. Respondents were told that in reporting they could follow the definition of payroll used for calculating the Federal withholding tax.

Production, development, and exploration worker hours—This item represents all hours that production, development, and exploration workers worked, both on active days during which there was production or development work and on inactive days when only security guards, inspectors, repairpersons, and other maintenance persons were on duty. It includes all hours worked or paid for at the mining operations, except hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Included are actual overtime hours, not straight-time equivalent hours. Hours of working proprietors or partners are excluded.

Supplemental Labor Costs—This item represents employer's cost for fringe benefits not included in payrolls.

Legally required expenditures, including social security contributions—This cost includes employer contributions for all programs required under Federal and State legislation, such as Federal Old Age and Survivors' Insurance, unemployment compensation, and worker's compensation. Also included are legally required State temporary disability payments.

Payments for voluntary programs—Included in this cost are payments resulting from union negotiated contracts and all employer payments of insurance premiums on hospital and medical plans, life insurance premiums, and premiums on supplementary accident and sickness insurance. For programs supported by joint employer-employee contributions, only the employer payments are included. Also included are payments or allocations on all pension plans regardless of methods of administration, supplemental unemployment compensation plans, welfare plans, stock purchase plans in which the employer payment is not subject to withholding tax, and deferred profit sharing plans.

Value added by mining—This measure of mining activity is derived by subtracting the cost of supplies used, minerals received for preparation, purchased machinery installed, purchased fuel, purchased electricity, and contract work from the sum of the value of shipments (mining products plus receipts for services rendered) and total capital expenditures. This statistic avoids the duplication in value of shipments and receipts which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure of value added not only in mineral production but also in the development of mineral properties. For these reasons, it is considered to be the best value measure for comparing the relative economic importance of mining among industries and geographic areas.

Cost of supplies used, purchased machinery installed, etc.—Besides supplies used and purchased machinery installed, this cost includes fuels and electric energy used and contract work done by others for each establishment. It includes charges to both the current and capital accounts. It also includes the cost of items used during 1982 whether they were purchased, withdrawn from inventories, or received from other establishments of the company. For selected supplies and fuels and for electric energy, both quantity and cost data were requested. The cost data refer to direct charges actually paid or payable (after discounts) for items used during the year.

Freight charges and other direct charges incurred by the establishment in acquiring the item are included. Companies whose records did not show actual amounts used were asked to approximate use by adding purchases (or receipts) during the year to opening inventory and subtracting closing inventory. Separate figures were requested for: (1) selected supplies used, minerals received for preparation, and purchased machinery installed; (2) electric energy purchased; (3) purchased fuels used for heat, power, or the generation of electricity; (4) contract work done by others; and (5) products bought and resold in the same condition. Supplies and equipment used in mine development, plant expansion, and capitalized repairs, which are chargeable to fixed assets accounts, are included in this item, as are supplies furnished without charge to contractors for use at the mining operation and supplies sold to employees for use at the establishment. Excluded are such costs as advertising, insurance, telephone, and research and consulting services of other establishments; or such overhead costs as depreciation charges, rent, interest, and royalties.

Value of shipments and receipts—The amounts shown as value of shipments and receipts for each industry are the net selling values, f.o.b. mine or plant after discounts and allowances, excluding freight charges. "Shipments" include all products physically shipped from the establishment during 1982, including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1982. For products transferred to other establishments of the same company or prepared on a custom basis, companies were requested to report the estimated value, not merely the cost of producing the items. Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value, i.e., to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

For all establishments classified in an industry, value of shipments and receipts includes: (1) the value of all "primary" products of the industry, (2) the value of "secondary" products which are primary to other industries, (3) the receipts for contract work done for others, except custom milling, and (4) the value of products purchased and resold without further processing. Receipts for custom milling are not included to avoid duplication with the value of custom milled ores included in an industry's primary and secondary products.

Some duplication exists in industry and industry group totals because of the inclusion of materials transferred from one establishment to another for mineral preparation or resale.

Capital expenditures—This item covers expenditures made during the year for development and exploration of mineral properties, for new construction, and for purchased machinery chargeable to fixed assets accounts of the mineral establishment. They are the type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1982 were to be determined as "additions completed during the year plus construction in progress at the end of the year minus construction in progress at the beginning of the year." Reported capital expenditures were to include work done on contract, as well as by the mine forces.

Expenditures for machinery and equipment were to include those made for replacement purposes, as well as those for additions to capacity. Excluded from these expenditures were costs of maintenance and repairs charged as current operating expense and expenditures for land and mineral rights.

Whenever applicable, separate figures were provided for expenditures for development and exploration of mineral property, construction of preparation plants and other construction, new machinery and equipment, used plant, and used equipment acquired from others.

Rental payments—This item consists of rental payments made to other companies for use of such depreciable assets as buildings, other structures, machinery, and equipment. It does not include payments made to the parent company or another subsidiary of the parent company for the use of buildings and equipment owned by the parent company or its subsidiary. The value of such company-owned assets is included in the gross value of depreciable assets.

Current account expenditures—This item includes all expenses for mineral properties, exploration, and development charged to current accounts. This includes all supplies, machinery, equipment, parts, fuels, power, etc., used for development or exploration and charged to current operating expenses. Also included are royalty payments, acquisition costs for mineral land and rights which were not capitalized, and the cost of maintenance and repairs associated with exploration or development activity and charged to current accounts.

Inventories—This item includes inventories of mined or quarried products, and supplies, parts, fuels, etc., at the beginning and end of the year. Beginning in the 1982 Census of Mineral Industries, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method. The inventory figures for 1982, therefore, will not be comparable to prior census data because of the change in reporting instructions.



APPENDIX B.

Geographic Divisions and States

NEW ENGLAND STATES

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont
North and Mid-Atlantic Offshore

MIDDLE ATLANTIC STATES

New Jersey
New York
Pennsylvania

EAST NORTH CENTRAL STATES

Illinois
Indiana
Michigan
Ohio
Wisconsin

WEST NORTH CENTRAL STATES

Iowa
Kansas
Minnesota
Missouri
Nebraska
North Dakota
South Dakota

SOUTH ATLANTIC STATES

Delaware
District of Columbia
Florida
Georgia
Maryland

SOUTH ATLANTIC STATES—Con.

North Carolina
South Carolina
Virginia
West Virginia
South Atlantic Offshore

EAST SOUTH CENTRAL STATES

Alabama
Kentucky
Mississippi
Tennessee

WEST SOUTH CENTRAL STATES

Arkansas
Louisiana
Oklahoma
Texas
Northern Gulf of Mexico Offshore

MOUNTAIN STATES

Arizona
Colorado
Idaho
Montana
Nevada
New Mexico
Utah
Wyoming

PACIFIC STATES

Alaska
California
Hawaii
Oregon
Washington
Pacific Offshore



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